SUPER CIRCUITS

H.264 4/8/16-Channel Networkable DVRs Installation and Setup Guide

Products: DMR90U, DMR91U, DMR92U

DMR90U 4-Channel DVR

DMR91U 8-Channel DVR and DMR92U 16-Channel DVR

PLEASE READ THIS MANUAL BEFORE USING YOUR SYSTEM, and always follow the instructions for safety and proper use. Save this manual for future reference.

DMR9xU_RM

Operate this device only in environments where the temperature or humidity is within the recommended range. Operation at extreme temperatures or in very high or low humidity levels may cause electric shock and shorten the life of the product.

Installation and servicing should be performed by qualified and experienced personnel only. DVR should always remain OFF during any installation process.

Do not use the camera if fumes, smoke or a strange odor is emitted from the unit, or if it seems to function incorrectly. Disconnect the power source immediately, and consult your dealer.

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11000 N. Mopac Expressway, Building 300, Austin, TX 78759
Sales/Support: 1.800.335.9777 | Fax: 1.866.267.9777

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SECTION 1
Systems Overview

Congratulations on purchasing your H.264 Networkable Digital Video Recorder (DVR)! Your new DVR features:

- State-of-the-art H.264 compression technology to maximize your recording time and optimize your video quality. H.264 compression saves hard drive space and supports faster data transfer.

- Triplex operation, allowing you to run video/audio recording, playback, and networking functions simultaneously, streamlining the use of your CCTV system and boosting the security level of your home, business or social venue. You can access live or recorded video from your standard or PTZ cameras immediately at the location of the DVR installation, or anywhere in the world using a web-browser or a mobile phone*. The video may be stored at a remote location for added security.

- *Apple® iPhone®, iPad®, and iPod Touch®, Google Android™, Symbian™, Windows® Mobile, and Blackberry® smartphones apps that let you monitor your home or business on the go from anywhere

These DVRs are usually pre-configured with and internal hard disk drive (HDD) by request of the purchaser, which retains the warranty on the unit. However, if the DVR enclosure is opened by the purchaser (necessary to install a an HDD), the warranty for the DVR is voided. See *Appendix C, DVR Compatible HDDs*, for additional information.

1.1 About this document

This document includes a simplified guide for setting up a basic system with a DMR90U, DMR91U, or DMR92U DVRs and standard analog cameras. Specific installation instructions for your cameras and other equipment you may add are usually included in the documentation provided with them.

1.2 What's in the box

DMR90U

Your DMR90U DVR includes:

- DMR90U DVR unit
- Remote Control
- Mouse
- Power adapter with cord for standard 120 VAC outlet.
- DVR Quick Guide
- CD Resource Pack with smartphone applications
- Screws (4) for mounting an internal hard disk drive (if no HDD is pre-installed)

DMR91U

Your DMR91U DVR includes:

- DMR91U DVR unit
- Remote Control
- Mouse
- Power adapter with cord for standard 120 VAC outlet.
- 8-channel audio RCA cable adapter
- DVR Quick Guide
- CD Resource Pack with smartphone applications
- Mounting bracket for mounting an internal hard disk drive (if no HDD is pre-installed)

DMR92U

Your DMR92U DVR includes:

- DMR92U DVR unit
- Remote Control
- Mouse
- Power adapter with cord for standard 120 VAC outlet.
- 8-channel audio RCA cable adapter (2)
- DVR Quick Guide
- CD Resource Pack with smartphone applications
- Mounting bracket and screws (8) for mounting an internal hard disk drive (if no HDD is pre-installed)

What you need

The DVR is the central component of your security system. To install the DVR, you need: :

- PC compatible monitor
- Uninterruptible power supply (UPS) (highly recommended). This device is used to ensure system stability during voltage surges, sags, and outages. If a UPS is not available, a power strip with strong surge protection is highly recommended.

To have a functioning system, you also need: s

- CCTV (analog) security cameras. The DMR9xU series DVRs support a large number of cameras.
- Microphones for audio monitoring (optional)
- Extension cables for the cameras with cable adapters (if needed) to connect to the DVR (BNC video terminations, RCA audio terminations)
- RS485 extension cable (for PTZ cameras). Consult your local electrical codes for gauge and shielding requirements.
- Powering equipment to support the cameras (usually provided with each camera)
- Access to an Ethernet LAN (optional) to use the networking capabilities of the DVR
- Tools to install the cameras and route power and video extension cables
- Fasteners to attach the cameras to the mounting surfaces

SECTION 2
Installing Your System

For each camera you received with your system, installation instructions are included. Follow the instructions to install all your cameras, then route the camera video and power extension cables to the location where the DVR will be setup. Some guidelines for camera placement, and considerations for weatherproof cameras and cable routing are provided below.

2.1 Some guidelines for camera installation

Plan your camera installation carefully. Identify the locations where cameras will provide the best coverage, considering:

- **Field of view** – Cameras must be positioned so they can effectively view the entire area that must be monitored, and in a location that makes tampering with it difficult.
- **Lighting** – Direct sunlight shining on the camera lens or bright reflections from shiny objects in the field of view can diminish video quality and camera performance. Mount the camera in shaded areas, if possible, or where these influences can be minimized.
- **Ease of installation** – The camera must be installable at the location, considering mounting hardware requirements, temperature, dust, moisture, etc.

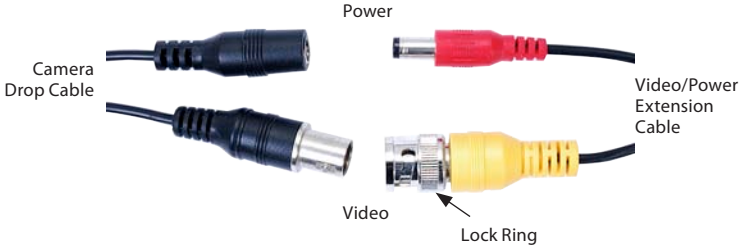
About weatherproof cameras

Weatherproof cameras can be mounted in any open area, such as on a telephone pole or on the side of a building. However, for best results, we recommend you mount your cameras in a sheltered area, such as under the eave or roof of a building. Point the camera in the direction you wish to observe. When routing cable near the camera, allow enough slack to form a U-shaped "drip loop" if it is exposed to moisture or rain water. A drip loop helps to direct water, that accumulates on the cable, away from the camera.

Cable routing

Video/power cables can be run almost anywhere, and are frequently routed through attics or above drop/acoustic ceilings because of the ease of installation. For added security, we recommend you run your cables in areas with limited access to prevent tampering. Avoid running the cable near high voltage appliances such as fluorescent lighting. Electrical noise and magnetic fields produced by these devices may affect video signal quality.

The video and power extension cables have different connectors at each end - one end for the camera drop cable, and the other end for the DVR and power source. The photo below shows the typical connectors of the camera drop cable with the mating power and video connectors of the extension cable.



Typical extension cable attachment

Some extension cables also include a lead with a white connector. This connector is usually used to carry audio signals from a microphone to the DVR. Cameras with microphones typically include an audio lead in the drop cable.

NOTE *Cable connections are not weatherproof.*

2.2 DVR installation

NOTE *Your DVR will not function properly without an HDD. If your DVR was purchased without a HDD, you must have Supercircuits install the HDD to retain the warranty.*
You can install your own HDD, but opening the encloser to install it will void the warranty. Refer to Appendix C, DVR Compatible HDDs, *for more information.*

2.2.1 DVR placement

Your monitoring and recording equipment is central to constant surveillance and the reliable capture of video evidence. Supercircuits strongly suggests that it be installed in a secure location with access limited to authorized personnel.

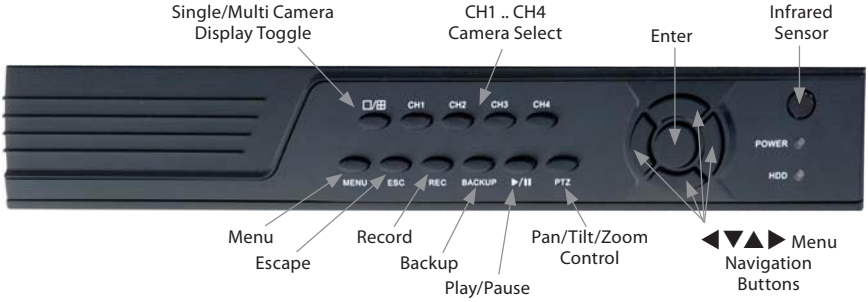
DVRs generate heat and should be placed in a ventilated area. A high temperature environment will reduce the life span and reliability of the equipment. Additionally, the DVR is not weatherproof, so avoid exposure to liquids and excessive dust. Do not place objects along the sides or behind the DVR that will block airflow through the unit.

Uninterruptible power supplies

It is strongly suggested that power to the system be routed through an uninterruptible power supply (UPS). These devices will keep your security system running through most power outages, in addition to providing excellent surge and sag protection. The UPS should support your video recorder and all cameras to ensure normal operation during abnormal power conditions.

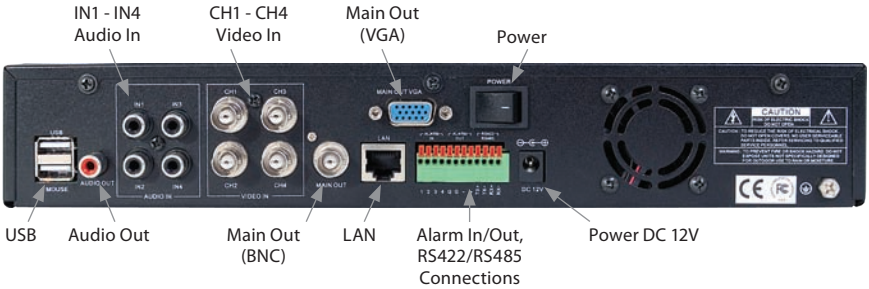
2.2.2 Controls and connectors (DMR90U)

DVR Front Panel



Button	Usage
□/⊞	Toggles between single camera, multi-camera display.
CH1 .. **CH4**	Used to select the camera on channel 1, 2, 3, or 4.
Enter	Press to confirm a menu choice.
Infrared Sensor	Sensor for the remote control.
MENU	Opens the main menu window
ESC	Press to exit any active window.
REC	Use to start and stop manual recording.
BACKUP	Opens a video search and playback menu.
▶/II	When a recorded file is selected, press this button to play. then press it again to pause playback.
PTZ	Used for pan/tilt/zoom control of cameras with this feature.
◀▼▲▶	Use these buttons to navigate through the menu system. Generally, use the ◀ ▶ buttons to move to selection boxes, and use the ▼ ▲ to select submenu parameters.

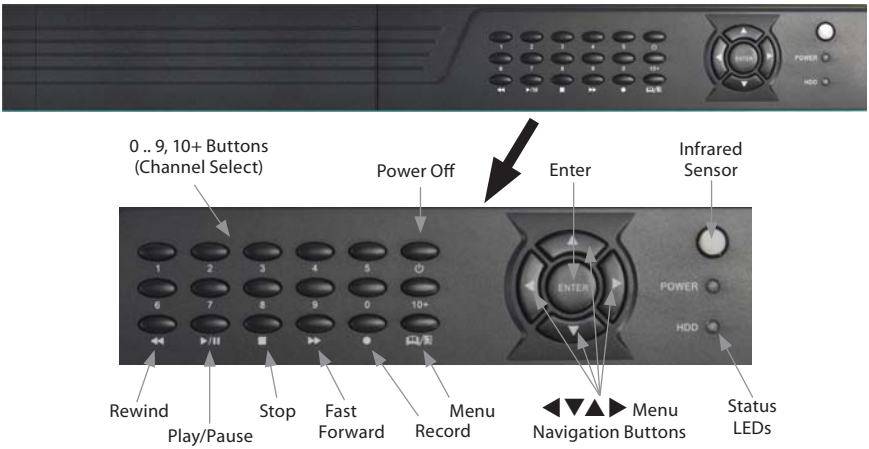
DVR Backpanel



Connector	Usage
USB - MOUSE	Use these USB ports to connect a mouse, or a backup device such as a flash drive or DVD recorder.
AUDIO OUT	Audio output from channel AUDIO IN channels 1, 2, 3, or 4.
IN1 .. IN4 AUDIO IN	RCA audio input to audio channels 1, 2, 3, and 4.
CH1 .. CH4 VIDEO IN	BNC video input to video channels 1, 2, 3, and 4.
MAIN OUT	BNC composite video output to display device (75Ω, 1V p-p).
MAIN OUT VGA	Standard VGA output to a display device, such as a computer monitor.
LAN	Standard RJ45 Ethernet 10BaseT, 100BaseT port with auto detect.
ALARM IN, ALARM OUT, RS422 RS485	Use these connectors to attach external sensor devices, alarm reporting devices, and devices with an RS422 or RS485 control interface, such as PTZ cameras. See the DVR Uer Manual for more information.
DC 12V	Connect to 12 VDC power adapter.
POWER	Power switch to turn the unit on and off.

2.2.3 Controls and connectors (DMR91U, DMR92U)

DMR91U, DMR92U Front Panel

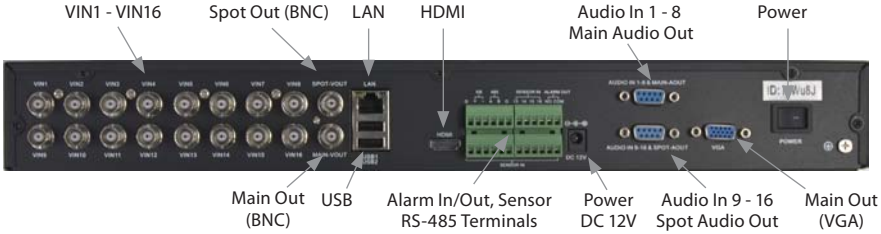


Button	Usage
1 .. 9, 0, 10+	Press to select channel for display. To select channels 10 - 16, press 10+, then the right digit of the number. For example, to display channel 12, press 10+, then 2.
Power Off	To power off the DVR.
Enter	Press to confirm a menu choice.
Infrared Sensor	Sensor for the remote control. (Remote control is not provided.)
Status LEDs	Status LEDs for power and HDD activity.
◀▼▲▶	Use these buttons to navigate through the menu system. Generally, use the ◀▶ buttons to move to selection boxes, and use the ▼▲ to select submenu parameters.
MENU	Opens the main menu window
REC	Use to start and stop manual recording.
▶▶	Fast forward. Press repeatedly to increase fast forward speed.
■	Stop recording / playback.
▶/II	When a recorded file is selected, press this button to play. then press it again to pause playback.
◀◀	Rewind. Press repeatedly to increase rewind speed.

DMR91U Back Panel (8 channel)

Connector	Usage
CH1 .. CH8	Video channel input connectors.
LAN	RJ-45 connector for Ethernet LAN.
MAIN OUT VGA	Video out VGA interface connector.
AUDIO	DB9 connector for input adapter for audio channels 1 .. 8 (associated with video channel inputs 1 .. 8, respectively).
POWER	Main power switch.
POWER DC 12V	12 VDC adapter power input connector
Alarm In/Out, RS485 Terminals	**Alarms in 1 .. 4 terminations**: For connecting to external sensor device, each alarm has one input pin. Connect positive (+) output pins of the alarm device to the inputs (Alarm In) on the DVR. Connect ground (-) output pins of the alarm device to the DVR Ground slots (G). Multiple devices can be connected to one ground slot. **Alarms out terminations**: NO, COM pins for alarm out normally open (N.O.) **RS-485 terminations**: A, B pins for connecting to RS-485 network (PTZ camera control)
MAIN OUT BNC	Video out BNC interface connector.
USB1, USB2	Use these USB ports to connect a mouse, or a backup device such as a flash drive or DVD recorder.

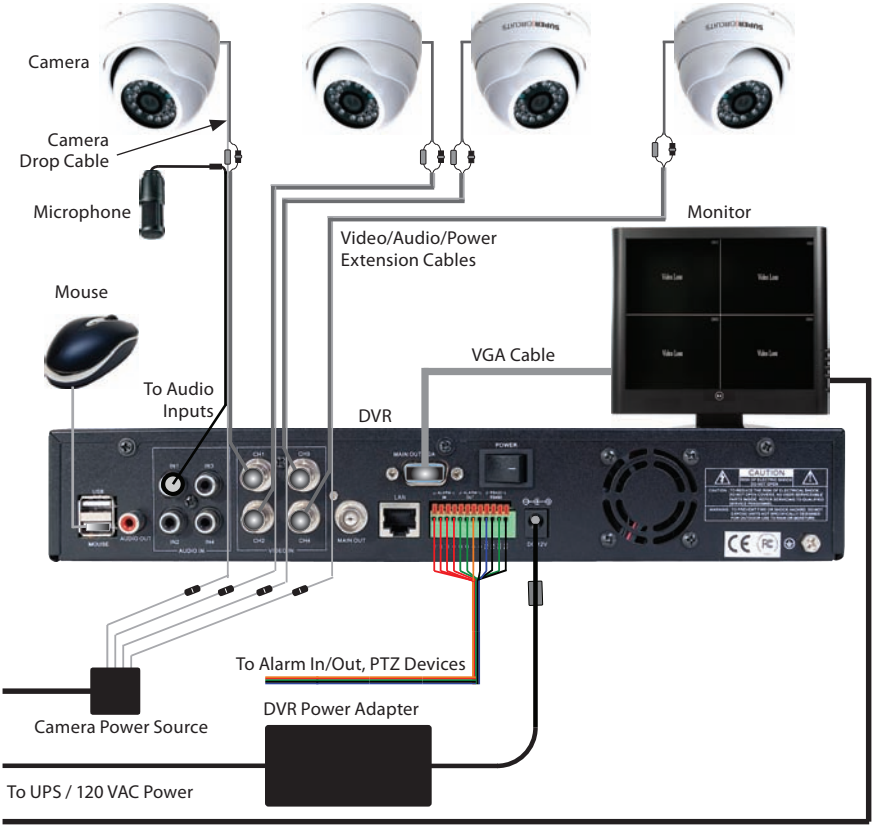
DMR92U Back Panel (16 channel)



Connector	Usage
VIN1 .. VIN16	Video channel input connectors.
SPOT-VOUT	Spot video out connector.
LAN	RJ-45 connector for Ethernet LAN.
HDMI	Main output through HDMI interface. This output is for viewing only.
AUDIO IN 1-8 & MAIN-AOUT	Connector for input adapter for channels 1 .. 8 audio (associated with video channel inputs 1 .. 8). and main audio out to speakers.
POWER	Power switch to turn the unit on and off.
MAIN OUT VGA	Standard VGA output to a display device, such as a computer monitor.
AUDIO IN 9-16 & SPOT-AOUT	Connector for input adapter for channels 9 .. 16 audio (for video channel inputs 9 .. 16). and Spot camera out for spot video to a monitor.
DC 12V	Connect to 12 VDC power adapter.
Alarm In/Out, SENSOR, RS485 Terminals	**Alarms In 1 .. 16 terminations**: For connecting to external sensor device, each alarm has one input pin. Connect positive (+) output pins of the alarm device to the inputs (Alarm In) on the DVR. Connect ground (-) output pins of the alarm device to the DVR Ground slots (G). Multiple devices can be connected to one ground slot. **Alarms out terminations**: NO, COM pins for alarm out normally open (N.O.) **RS-485 terminations**: A, B pins for connecting to RS-485 network (PTZ camera control)
MAIN OUT BNC	Standard BNC output to a display device, such as a computer monitor.
USB1, USB2	Use these USB ports to connect a mouse, or a backup device such as a flash drive or DVD recorder.

2.3 Connecting the system together

All connections to the DVR are made on the back of the unit.

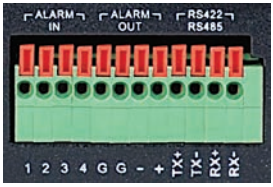


*Basic System Interconnection Diagram**

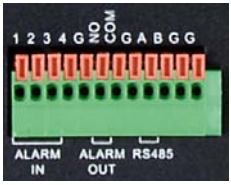
* **NOTE:** Power cabling shown in the previous diagram is recommended for 4-channel systems with CD33W-2 series cameras. 8- and 16-channel systems include an RCA to DB-9 audio input adapter cable(s) and back panel connector(s).

2.3.1 Connect alarm in, alarm out, PTZ devices

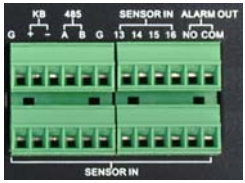
Alarm in, alarm out, and PTZ device cabling terminates on the wire terminal block on the back of the DVR. These terminal blocks are different for each DVR. See below.



Terminal block of DMR90U



Terminal block of DMR91U



Terminal block of DMR92U

DMR90U

The DMR90U provides four alarm inputs ("1" .. "4") with ground terminals (labeled "G"), and one alarm output (labeled "-" and "+"). RS422/RS485 terminations are labeled TX+, TX-, RX+, RX-.

DMR91U

The DMR91U provides four alarm inputs ("1" .. "4") with one ground terminal (labeled "G").

One normally open alarm output (labeled "NO" and "COM").

RS485 terminations are labeled "A" and "B" for RS485-A and RS485-B respectively.

DMR92U

The DMR91U provides 16 sensor inputs. The lower row of terminations are for sensor inputs for alarms 1 - 12, left to right. Sensor inputs 13 through 16 are in the upper row of terminations where marked.

One Normally Open (NO) alarm output is provided on the upper row of terminations and marked "NO" and "COM".

Keyboard terminations are labeled KB "+" and "-".

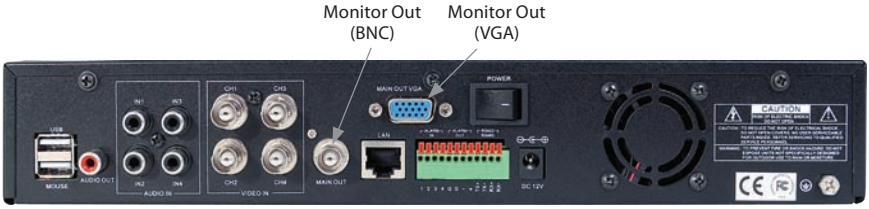
RS485 terminations are labeled 485 "A" and "B" for RS485-A and RS485-B respectively.

Ground terminal are labeled "G".

2.3.2 Install and setup a monitor

1. Install and setup your monitor in accordance with the instructions provided with the monitor. Do not power it on at this time.

2. Cable the DVR Monitor Out (VGA) or HDMI (DMR92U only) connector to your monitor's VGA input. You can also use the monitor out BNC interface, but the signal quality is better through the VGA interface.



NOTE *Some monitors have multiple inputs such including VGA ,HDMI, BNC, etc. If you are using this kind of monitor, configure your monitor to display the input from your DVR.*

1. Connect the system mouse to the USB connector labeled MOUSE.

2. Connect the camera video signal cables (BNC connectors) to the video input connectors on the back of the DVR.

3. Connect a display device to the DVR. If using a VGA monitor for a display, connect it to the MAIN OUT VGA connector. If using the MAIN OUT BNC connector to drive a display such as a TV, attach the appropriate cables between the MAIN OUT BNC and your display device.

4. If you are installing a system:

    a. Connect a camera power adapter to the DVR end of each video/power extension cable, then plug the power adapter into a standard 120 VAC power source through a UPS or surge protector.

    b. Connect the DVR power adapter to the **DC 12V** connector on the back of the DVR, then connect the power cord to the power adapter and plug it into a standard grounded 120 VAC power source through a UPS or surge protector.

    c. If you are installing audio feeds (microphones) to your DVR:

        i. Attach the DB-9 audio RCA adapter cable to the Audio input connector on the back of the DVR. For 16-channel DVRs, two DB-9 audio RCA adapter cables are provided; one for audio channels 1 .. 8 for the Audio In 1 - 8 DB-9 connector, and one for audio channels 9 ... 16 for the Audio In 9 - 16 DB-9 connector.

ii. Connect each audio feed to the audio adapter cable RCA connector with the number of the camera channel it is associated with. For instance, if the audio feed is associated with the camera on Vin channel 8, plug the audio feed into the RCA connector labeled A-In8.

iii. If you are monitoring live audio through a sound system, plug the RCA A-Out connector (line level signal) to an audio amplifier system, or powered speaker.

5. Power on your system monitor.

6. Power on the DVR using the POWER switch on the backpanel. A startup "Loading" screen will appear on the display. After a few seconds, the screen will change to the camera view screen.

Note: The images you see from your cameras may be different from those shown here.

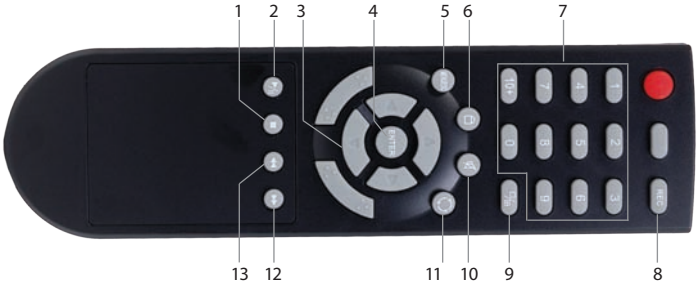
2.4 Adjusting the camera

Adjust your camera to produce the best performance:

- While observing video from your camera, use the documentation provided to aim the camera at the surveillance target.
- Depending on the features of your cameras, other adjustments, such as focus, zoom, aperture, IR level, etc. may also be available. Make these adjustments under various lighting conditions, if necessary, to yield the best video image overall.

2.5 Using the remote control and mouse

The enter key on the remote control or the front panel has the same function as a mouse left click. The IR Range of the remote control is 10 meters. The buttons on the remote control correspond with the buttons on the front panel.



Item	Function
1	**Stop**: Stop playback
2	**Play/Pause**: Opens video search and playback menu. In playback mode, press this button to play/pause playback.
3	◀▼▲▶ Move selected item in menu.
4	**ENTER**: This button is used as the "enter" key for most operations.
5	**Menu** (MENU/ESC): Displays/exits the main menu.
6	**Lock**: If the password is enabled, press it to logout the system.
7	**Numerical Button**: Use buttons 1, 2, 3, or 4 to select the channel to display.
8	**REC**: Start or Stop manual recording.
9	**Quad**: Press this button to switch display modes from single channel display to a multi-channel display.
10	**Mute:** Not used.
11	**Spot View**: Press to enable auto sequencing.
12	**Fast Forward**: Fast forward video during playback.
13	**Rewind**: Rewind video during playback.

Mouse control

The mouse operates very similar to a mouse on a Windows PC. Connect the mouse to the USB connector on the DVR back panel.

Action	Effect
Right click	In live display mode, right clicking to either display or hide the tool bar.
	In main menu or sub menu mode, right clicking to exit the current menu. Note that the settings will not be saved after right clicking.

Action	Effect
Left click	On menu unlock mode, in the tool bar left click on the SYSTEM SETTINGS icon, to enter into the main menu.
	After entering main menu, left click to enter sub menus.
	In menu mode, left click the PLAY icon, to review video files.
	Left click to select values in edit boxes or pull-down menus. The system supports special symbols, numbers and letters.
	Left click the PLAY icon, to enter playback mode. Left click **>>** to control the forward function, **<<** reverse function, **>>I** Slow play function, **I>** frame play function, > Play function, and **X** exit function.
	In the VIDEO | VIDEO SETUP | COLOR SETUP configuration window, you can left click to adjust color control bar and screen control bar.
	In the main menu, sub menu or playback view, left click "x" to exit/close the current menu.
	In the ALARM |MOTION | MD AREA configuration window, left click an area segment to select/deselect it for motion sensing.
Double click	In live view or during video playback, double-click to maximize channel on the screen.
Mouse drag	In the ALARM |MOTION | MD AREA configuration window, press the left mouse button and drag to frame an area to sense for motion detection.
	Use the mouse to select menu items.

SECTION 3
DVR Setup

Setting up your DVR includes logging into your DVR, setting the clock, setting administrator and user account passwords, and setting up scheduled and/or automated motion recording.

NOTE *The following sections provide a generic procedure for setting up a system with a DMR90U series DVR. If you are setting up an 8- or 16-channel system, the displays you see may be slightly different. For example, if you have an 8-channel DVR, the initial DVR camera channel display will be an 8-split screen, one split for each channel.*

3.1 Login to the DVR

Initially, two access accounts are provided in your system: **Admin** and **user1**. With the **Admin** login, you can make configuration changes to the system, create user accounts and passwords, and control the privileges allotted to each account. With the factory default **user1** account login you cannot make configuration changes or create accounts, but can change your own password. The factory default **Admin** and **user1** account passwords are:

Admin: 888888
user1: 666666

To log into the system:

1. Power on the DVR and wait until it advances to the camera view screen. A typical camera view screen is shown below.

Image from Channel 1 Camera

NOTE *During initial startup of the system, no password is required.*

2. Press the **MENU** button on the front panel twice, or right-click the mouse twice anywhere on the screen. An **Input Password** window will appear.

3. Click the ▼ icons to the right of the User Name field parameter field and select **Admin**. To make configuration changes to the system, you must login to the **Admin** account.

4. Using the mouse, click the entry field on the PASSWORD line, then click the number buttons that appear to enter the account password. For example, to enter the default **Admin** password, **888888**, click the "**8**" button six times, then click the confirm entry icon.

5. Click the ✔ (check mark) icon in the lower right corner of the window to confirm your entry and enter the login information. A tool bar icon strip will appear at the bottom of the screen.

3.2 Configuring the system

Basic system configuration settings include setting the screen language, video system format, system time, creating users, initializing the hard disk drive (HDD), and setting up automated recording.

1. If the system is not running, power on the DVR and wait until it completes initialization.

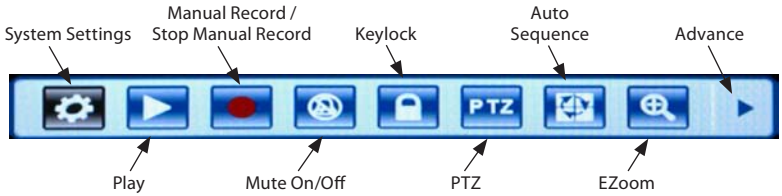
2. Right-click anywhere on the desktop, or press the MENU button. A status bar will appear.

3. Compare the DVR system date and time shown on the Status Bar with an accurate clock.

Status Bar

Note: To see an accurate clock, access a reliable Internet time server, such as **tf.nist.gov**

4. Right-click the mouse anywhere on the screen again. The Status bar will change to a Tools Bar or a login window. If a LOGIN window opens, log in to the system as an Admin (see above).

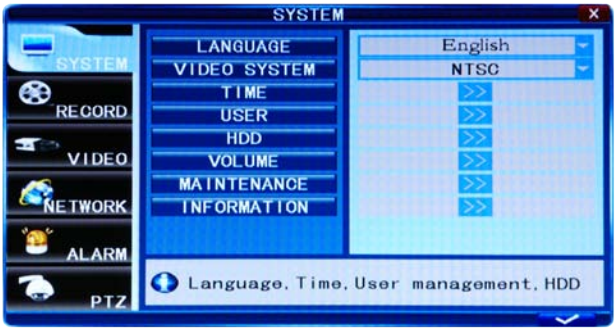


Tool Bar

5. Click the **Settings** button on the Tool Bar.

3.2.1 Setting the screen language and video system format

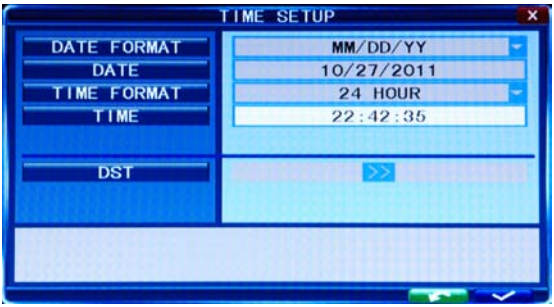
6. In the Settings window **SYSTEM** tab, click the ▼ icon at the right end of the **LANGUAGE** line. Select (click) the screen language you prefer from the dropdown list.



7. If the **VIDEO SYSTEM** option does not indicate NTSC, click the ▼ icon at the right end of the **VIDEO SYSTEM** line, then select **NTSC** from the dropdown list.

3.2.1 Setting the system time

1. On the **TIME** line, click the >> icon to open the **TIME SETUP** window.



2. Click the ▼ icon at the right end of the **DATE FORMAT** line. Select the format you prefer: MM/DD/YY, YY-MM-DD, or DD-MM-YY.

3. Click the entry on the **DATE** line. Click the ◀ or ▶ icons to highlight a digit of the date, then click the number value of the digit To complete the entry and close the virtual keyboard, click the ↵ button.

4. Click the ▼ icon at the right end of the **TIME FORMAT** line. Select the format you prefer: 12 hour or 24 hour.

5. Click the entry on the **TIME** line. Click the ◀ or ▶ icons to highlight a digit of the current time, then click the number value of the digit. To complete the entry, click the ↵ button.

6. If you selected a 12 hour time format, click the ▼ icon on the line below the TIME entry, then select either AM or PM.

7. On the **DST** line, click the >> icon to open the **DST** (ON/OFF) option window. If you select ON, a DST setup window will open. Use the method like that detailed above to setup the DST start and end time, then click the confirm entry check (✔) in the lower right corner to confirm your entries.

8. Click the **CONFIRM** button in the NOTE window.

3.2.2 Change the Admin and user1 passwords

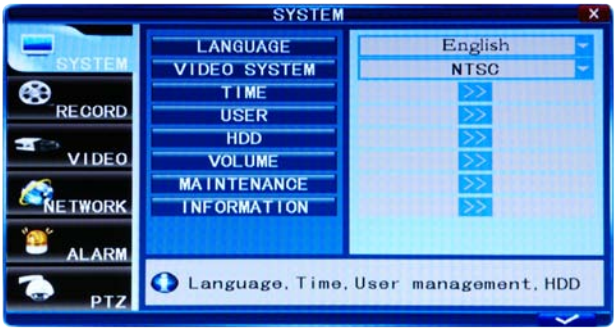
Changing the default **Admin** and **user1** account passwords from their initial (default) value adds security to your system. The factory default account names and their passwords are:

Admin: 888888
user1: 666666

To change these passwords:

1. With the system powered on, right click twice on the desktop or press the menu button on the front panel twice, then log into the system as the **Admin** (if a password login is required).

2. Click the Settings icon on the Tool Bar to open the SYSTEM tab window.



1. On the **USER** line, click the **>>** icon to open the **USER MANAGEMENT** window.

2. On the **CHANGE PASSWORD** line, click the **>>** icon to open the **CHANGE PASSWORD** window.

3. Click the ▼ icon at the right end of the **USER NAME** line. From the dropdown list, select **Admin.**

4. Click the OLD PASSWORD entry field, then enter the current Admin password using the virtual keyboard.

5. Enter both the **NEW PASSWORD** and **CONFIRM PASSWORD** fields with a different password. Passwords cannot be more than 6 digits in length.

6. Click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

7. Repeat steps 3, 4, 5, and 6 above to change the **user1** password.

3.2.3 Add users to the system

1. On the **SYSTEM** tab **USER** line, click the **>>** icon to open the **USER MANAGEMENT** window.

2. In the **USER MANAGEMENT** window, click the **>>** icon on the **ADD USER** line.

3. Click the entry field on the **USER NAME** line to open a virtual keyboard. Click the letters and numbers to enter a username, then click the ↵ icon to close the keyboard.

4. Enter both the **PASSWORD** and **CONFIRM PASSWORD** fields with a password for the user. Passwords cannot be more than 6 digits in length.

5. Click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

6. Press the **MENU** button on the front panel or right click on the desktop to return to the USER MANAGEMENT window.

7. In the **USER MANAGEMENT** window, click the **>>** icon on the **SET PERMISSIONS** line.

8. Click the ▼ icon at the right end of the **USERS** line. From the dropdown list, select the name of the user you just created.

9. Click the **OPT** checkboxes to assign permissions to the new user.

10. Click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

11. Press the **MENU** button on the front panel to return to the USER MANAGEMENT window, then press the **MENU** button again to return to the SETTINGS window SYSTEM tab.

3.2.4 Set HDD overwrite option

1. On the **SYSTEM** tab **HDD** line, click the **>>** icon to open the **HDD MANAGEMENT** window.

2. Click the ▼ icon at the right end of the **OVERWRITE** line. From the dropdown list, select the option you prefer:
   - **Close**: When the HDD becomes full, no additional recordings are written to the HDD

- **Overwrite**: Recordings on the HDD are overwritten when the HDD becomes full. The oldest recording is overwritten first.
- **1 HOUR .. 90 DAYS**: Recordings are overwritten when older than the time selected.

3. Click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

4. Press the **MENU** button on the front panel or click on the desktop to return to the **SYSTEM** tab.

3.3 Record configuration settings

The recording settings of each camera channel can be specified separately or collectively. These settings, including the recording schedule for each channel, are setup through the Record tab.

1. Click the **Settings** icon on the Tool Bar to open the SYSTEM tab window.

2. Click **RECORD** to open the RECORD settings menu.

3. Click the ▼ icon at the right end of the **CHANNEL** line. From the dropdown list, select the number of the camera channel you want to setup, or select ALL to configure all channels with the same settings.

4. Click the ▼ icon at the right end of the **RECORD** line. From the dropdown list, select DISABLE, or ENABLE to record video from the channel.

5. Click the ▼ icon at the right end of the **BITRATE** line. Select GOOD, NORMAL, or LOW. A GOOD bitrate produces the best recording quality, but uses more processing power and hard disk space.

6. Click the ▼ icon at the right end of the **RESOLUTION** line. From the dropdown list, select D1 (720 × 486), HD1 (720 × 240), or CIF (352 × 288).

7. Click the ▼ icon at the right end of the **FRAME RATE** line. From the dropdown list, select a number between 1 and 30 (frames per second). The higher the frame rate (30 fps), the smoother the video motion. However, higher frame rates consume storage space faster.

8. Click the ▼ icon at the right end of the **PACKTIME** line. From the dropdown list, select either 15, 30, 45, or 60 (minutes). Packtime is the time length of video file segments that are off-loaded (backed up).

9. Click the ▼ icon at the right end of the **RECORD MODE** line. From the dropdown list, select either ALWAYS or SCHEDULE. ALWAYS causes the DVR to record continuously. Selecting SCHEDULE allows you to open a window to configure the DVR to record by the hour of the day and day of the week, either by motion sensing, continuous recording, or not recording. See Scheduled recording below.

10. If you are configuring the camera channels differently, repeat this procedure for the other camera channels.

Scheduled recording

If the RECORD MODE -SCHEDULE is selected:

11. Click the >> icon on the **RECORD** tab to open the RECORD SCHEDULE SETUP window.

12. Click the ▼ icon at the right end of the **CHANNEL** line. From the dropdown list, select the channel number to apply the recording schedule to, or select ALL to apply the schedule to all cameras.

13. At the bottom of the window, click either the MD (motion detection) or NORMAL (continuous recording) checkbox, then click a box in the time array to apply that method of recording to that timeslot.

    In the example above, NORMAL recording was scheduled for Monday through Saturday between 7 AM and 6 PM. MD recording was scheduled for Monday through Friday between 4 AM and 7 AM and between 6 PM and 9 PM, and on Saturday and Sunday between 4 AM and 9 PM.

14. Click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

15. If you setup the record schedule for a single channel, repeat this procedure to setup the other camera channels.

16. Press the **MENU** button on the front panel to return to the **RECORD** tab.

3.4 Video configuration settings

The video configuration settings affect the appearance of the camera video on the monitor. The configuration can be se setup for each individual camera, or the same settings can be applied to all cameras.

1. Click the **Settings** icon on the Tool Bar to open the SYSTEM tab window.

2. Click **VIDEO** to open the VIDEO settings menu.

3. Click the ▼ icon at the right end of the **CHANNEL** line. From the dropdown list, select the number of the camera channel you want to setup, or select ALL to configure all channels.

4. Initially, camera channels are named CH1 .. CH4. You can change the name of the channel by clicking on the entry field on the NAME line to open a virtual keyboard. Use the keyboard to enter a new name, if needed, then click the ↵ button to close the keyboard.

5. Click the ▼ icon at the right end of the **POSITION** line. The position option selects where the camera channel NAME appears on the live display. Choose one of the flowing: U-L (upper left), D-L (lower left), U-R (upper right), or D-R (lower right).

6. Click the ▼ icon at the right end of the **LIVE** line. In the dropdown list, select **ON** (to view video from the camera on the Live screen), or **OFF**.

7. On the **COLOR** line, click the >> icon to open the **COLOR SETUP** window.

The COLOR SETUP window is superimposed on the video image from the camera channel you selected. Adjust the markers for the HUE, BRIGHTNESS, CONTRAST, and SATURATION to produce the best picture from the camera.

8. Click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

9. If you setup the record schedule for a single channel, repeat this procedure to setup the other camera channels.

3.4.1 Video setup

The VIDEO SETUP menu provides configuration settings for the monitor screen resolution, sequential live view settings, and video blocking.

1. Click the **Settings** icon on the Tool Bar to open the SYSTEM tab window.

2. Click **VIDEO** to open the VIDEO settings menu.

3. On the **VIDEO SETUP** line, click the >> icon to open the VIDEO SETUP menu.

4. Click the ▼ icon at the right end of the **VGA** line. Select one of the options: 1024 x 768 or 1280 x 1024. **NOTE**: Changing this setting from the current value will cause a DVR restart.

5. Click the entry field on the **SEQUENTIAL TIME** line, then enter a number between 1 and 300 (seconds). This option sets the pause duration when sequentially displaying the live video from each camera in full screen.

Video blocking

For security or privacy reasons, some areas of the video fields of view are blocked. To setup the blocking:

1. In the VIDEO SETUP menu, click the ▼ icon at the right end of the **CHANNEL** line, then select a video channel number from the dropdown list.

2. On the **VIDEO SETUP / AREA COVERED** line, click the **>>** icon. Video from the camera will appear in full screen mode.

3. Block areas of the video image by pressing the left mouse button and dragging to create a box over the areas you want to block. In the following image, two block boxes cover windows for privacy.

After the block is created, it can be repositioned by dragging it with a mouse.

To remove a block, double click on it.

4. Right click anywhere on the desktop to return to the **VIDEO SETUP** menu.

5. Click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

6. Repeat this procedure for the other camera channels, if necessary.

3.4.2 AUDIO

If the camera channel you are configuring is associated with a microphone,set up audio inputs for the current channel. The option includes UNBIND, CH1, CH2, CH3, and CH4. For example, if the current channel is CH1 and AUDIO is set at "UNBIND", there will be no audio for CH1; if the current channel is CH1 and the "AUDIO" is set at "2", the audio of Audio input 2 will play with CH1.

Volume

Click **System Settings -> System -> Volume** to open the Volume setting window. With a normal sound volume level in the environment of the microphone, drag the slider left or right to decrease or increase the volume level.

RECORD menu AUDIO

Open the RECORD menu. In the AUDIO option select OPEN or CLOSED. OPEN indicates that the audio recording for all channels is enabled; CLOSE indicates that audio recording is disabled.

3.5 Network configuration settings

Use the NETWORK menu to configure your DVR for use on a LAN, for access through the Internet, for access from a smartphone, and for issuing automated email when alarm conditions occur.

Refer to the Chapter 4, **Networking your DVR** for configuring your system for local LAN and Internet access. For other network settings, including DDNS, EMAIL, MOBILE, and OTHER SETTINGS, refer to the chapter **DVR System Menus**.

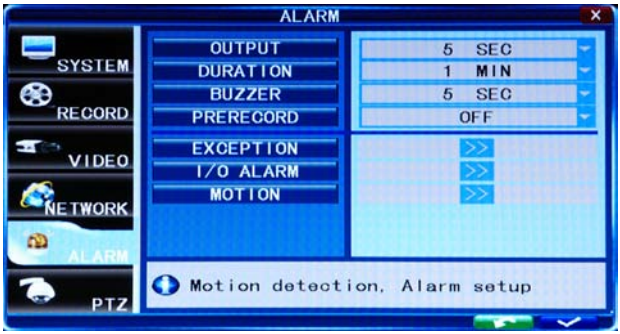
NOTE *The default IP addresses and port settings of your DVR may be different from those shown in this document. Always use network settings that are compatible with your network(s).*

3.6 Alarm configuration settings

Use the ALARM menu to configure your DVR for behavior when the hard disk drive becomes full, and for motion detection sensitivity of each channel.

1. Click the **Settings** icon on the Tool Bar to open the SYSTEM tab window.

2. Click the **ALARM** tab to open the ALARM settings menu.



3. Click the ▼ icon at the right end of the **DURATION** line. From the dropdown list, select either 30 SEC .. 5 MIN. This option sets the recording time length after an alarm recording is activated.

4. Click the ▼ icon at the right end of the **BUZZER** line. From the dropdown list, select either OFF, or 5 SEC .. 60 SEC. This option sets the buzzer sounding time when the alarm is triggered.

5. Click the ▼ icon at the right end of the **PRERECORD** line. From the dropdown list, select either OFF or 5 SEC. This option disables or enables recording 5 seconds of video before the alarm occurred.

6. Click the >> icon on the **EXCEPTION** line to open the EXCEPTION ALARM menu.

7. Click the **>>** icon at the right end of the **HDD FULL** line. This feature enables the buzzer sound when the HDD is nearly full. Select either OFF, 1 G (remaining), 5 G ,10 G, 1 HOUR, 5 HOUR , 10 HOUR, or 20 HOUR.

8. Click the checkbox to the right of the **HDD LOSS** label to enable this alarm. When the HDD is not available, this feature will sound the buzzer and place the on the desktop.

9. Click the checkbox to the right of the **VIDEO LOSS** label to enable this alarm. When a video signal from a channel is not detected, this feature will sound the buzzer and place the **Video Loss** label in the channel LIVE view window.

10. After configuring your network settings, click the confirm icon (✔) in the lower right corner of the screen, click the **Confirm** button in the **Note** window.

11. Press the **MENU** button on the front panel, or right click anywhere to return to the ALARM menu.

3.6.1 Motion detection setup

Motion detection can be configured for each channel individually, or you can apply the same settings to all channels at one time.

1. On the **ALARM** tab menu, click the **>>** icon on the MOTION line to open the MOTION DETECTION menu.

2. Click the ▼ icon at the right end of the **CHANNEL** line. From the dropdown list, select the camera channel number you want to setup, or select ALL to configure all channels.

3. Click the ▼ icon at the right end of the **SWITCH** line. From the dropdown list, select ON or OFF to enable or disable motion detection on the channel(s).

4. Click the ▼ icon at the right end of the **SENSITIVITY** line. From the dropdown list, select 1 .. 8 to set the level of sensitivity. 1 is highest, 8 is lowest. High sensitivity may cause an alarm when a small object, such as a bird or mouse, passes through the field of view, whereas the lowest sensitivity level may be appropriate for detecting only cars that pass by. This setting is dependent on the what you want to detect, and usually requires testing to find the best value.

5. Click the **>>** icon on the **MD AREA** line to specify the areas where of the screen where motion should be sensed. Defining only these areas (and ignoring other areas) of the field of view improves the performance of the DVR.

   The Motion Detection setup screen is partitioned into a grid of 10 x 15 blocks. Motion sensing in each block can be toggled on and off by clicking the block area. Initially, all blocks are shaded purple, indicating that motion sensing is disabled everywhere.

   To enable blocks (areas) for motion sensing, click the block, or use the mouse to drag a rectangle over areas you want to enable. The shading will disappear for areas selected for motion detection. To disable an area selected, click on it.

6. After the motion sensing areas are selected (unshaded), right click to return to the MOTION DETECTION SETUP menu.

7. Check the box to right of the **RECORD** label to enable recording when motion is detected.

8. Check the box to right of the **BUZZER** label to sound the buzzer when motion is detected.

9. Check the box to right of the **PRERECORD** label to add the previous 5 seconds of video from the camera to the motion detection recording.

10. Check the box to right of the **EMAIL** label to send an email when motion is sensed. To use this feature, the EMAIL configuration settings in the NETWORK tab must be configured.

11. After configuring your motion detection settings, click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

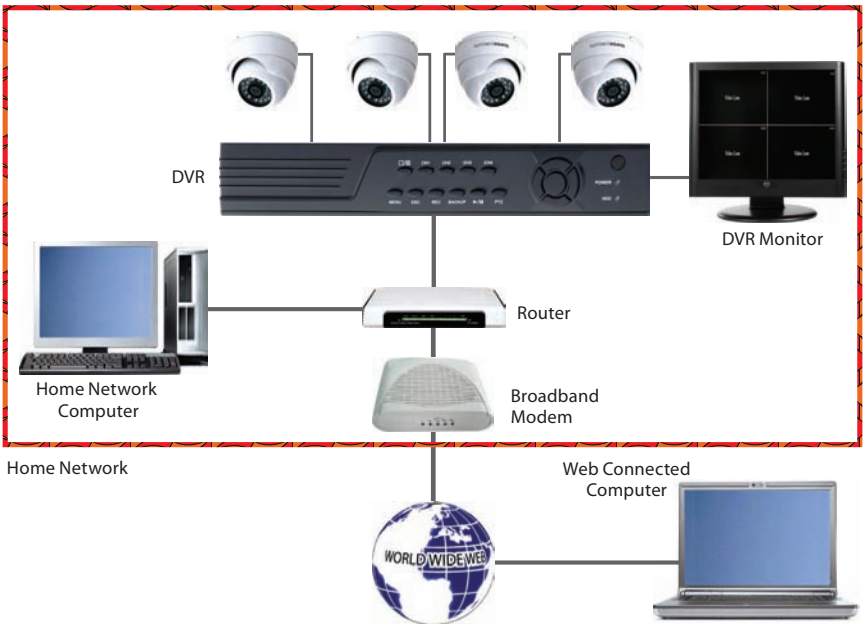
12. Repeat the steps above for the other camera channels.

SECTION 4
Networking Your DVR

Your DVR supports highly flexible networking configurations including an Ethernet connection, such as to a home network with a broadband router and modem, and a PPPOE connection. In this section, only general guidelines for the setup of a DVR on a simple Ethernet broadband home network are included. If you encounter problems you cannot resolve, contact the Supercircuits Support team at 1.800.3335.9777.

Home networks

A typical home network includes router, one or more computers, and a broadband modem for access to an internet service provider (ISP) and the internet. The DVR attaches to the network like a computer, except that it has preset IP address settings that must be configured for your network.



Setting up the DVR on the home network requires configuring it with IP address settings that are compatible with your network, and connecting an Ethernet cable between the DVR and the router. Once setup, your security system can be monitored and controlled from any computer on the network with the Microsoft® Internet Explorer® (IE) browser.

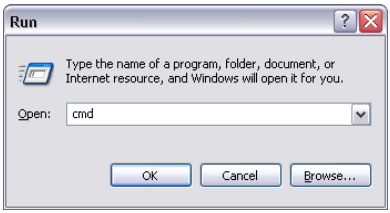
After the DVR is setup on your home network, usually the router can be configured so that the DVR is accessible from a computer on the Internet or from a smartphone. Although most routers perform similar functions, the specific procedures to configure them vary widely. However, the documentation provided with your router, with the general guidelines included here, should enable you to setup your DVR for web access.

4.1 Configure the DVR for access on your home network

To setup your DVR on the network without conflicting with other devices, configure the network settings of your DVR before physically connecting it to the network. Network conflicts occur when two devices on the network have the same IP address. The screens shown here were taken from a Windows XP system:

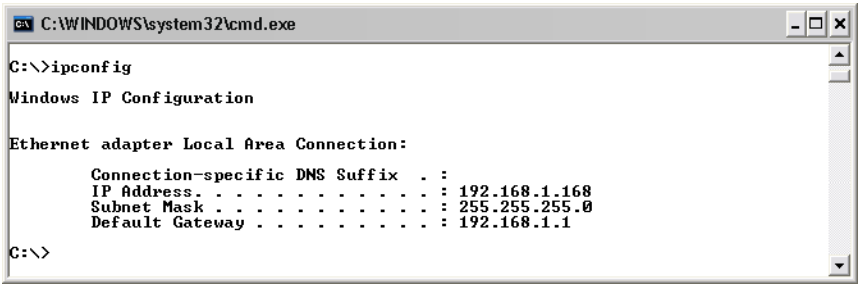
1. Determine the IP address, subnet mask, and default gateway of your home computer (PC) and record it in Table 1. To get this information, do the following at the Windows desktop:

   a. Open the Windows Start menu and click **Run** to open the Run dialog box.



   b. Type **cmd** in the entry field and then click **OK** to open the DOS command window.

   c. At the command prompt, enter **ipconfig.** The PC will display Ethernet data associated with your Ethernet adapter local area network (LAN) connection.


C:\WINDOWS\system32\cmd.exe
C:\>ipconfig
Windows IP Configuration
Ethernet adapter Local Area Connection:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.1.168
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1
C:\>

Example: Typical use of ipconfig in Windows XP

d. Enter the IP Address, Subnet Mask, and Default Gateway for your PC's Ethernet adapter into Table 1.

NOTE *The Ethernet adapter data you see by using ipconfig will probably be different from that shown in the example above. If you are using Windows Vista or Windows 7, the IP address is identified as the "IPv4 Address."*

Table 1. PC/DVR network settings

	Computer (PC)	DVR
IP Address		
Subnet Mask		
Default Gateway		

2. At your PC, find an IP address on your network that is not in use:

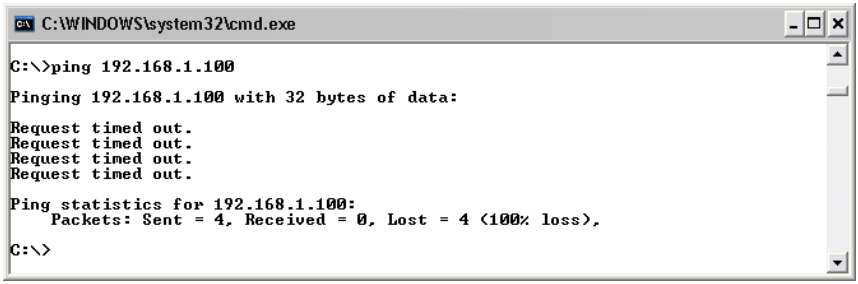
   a. Write down the EXACT IP address of your PC up to the third/last period. Using the example shown above in the screen capture of ipconfig, this number would be: 192.168.1.

   b. After the third period, choose any number between 1 and 255 that is different from the one in your PC's IP address, 168. As a first try, let's choose 100, which will form the IP address 192.168.1.100.

   c. Next, use the **ping** command in the DOS window to see if that IP address is in use on your network. The format of the ping command is:

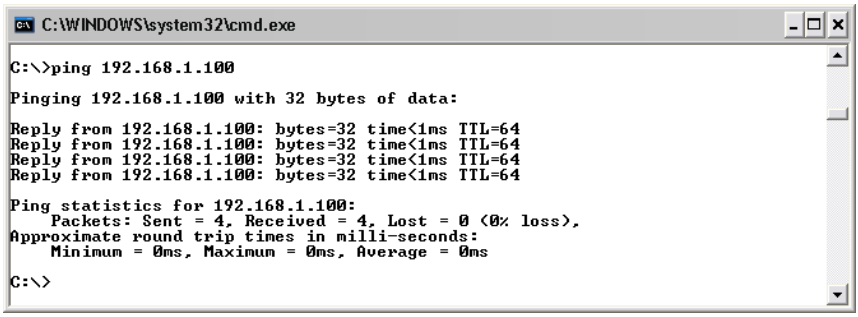
      ping <IP address> For this example here, we entered: **ping 192.168.1.100**

      To test your IP address, enter **ping 192.168.1.100**. Any reply received from the **ping** indicates that a device on the network is already using this IP address and you can connect to it.



d. Examine the screen capture shown above. If the response to the **ping** command was "**Request timed out.**" like that shown above, use this IP address for your DVR, enter into Table 1, skip step 2.e and continue at step 2.f.

If the response to the **ping** command was "**Reply from 192.168.1.100**: .." as shown below, a device exists on the network that is using this IP address. If so, continue at step 2.e.



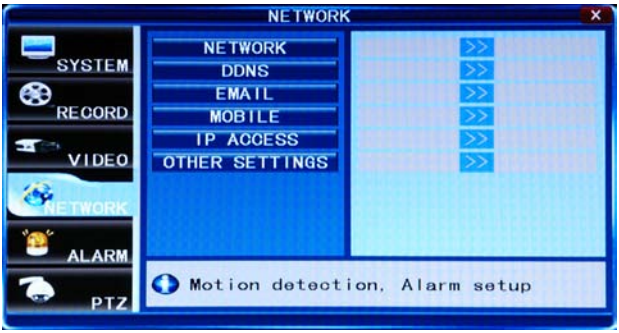
e. Since the response to **ping** test returned a reply as shown above, try the ping with another number between 1 and 255 until one is found that responds with the "**Request timed out.**" message. Use this IP address with your DVR and enter it into Table 1.

f. In table 1, copy the PC's Subnet Mask and Default Gateway entries into the DVR's **Subnet Mask** and **Default Gateway** cells.

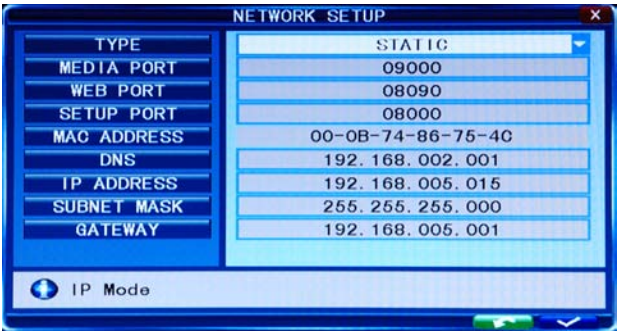
3. At your DVR, click the **System Settings** icon on the Tool Bar to open the SYSTEM tab window.

4. Click **NETWORK** to open the NETWORK settings menu.

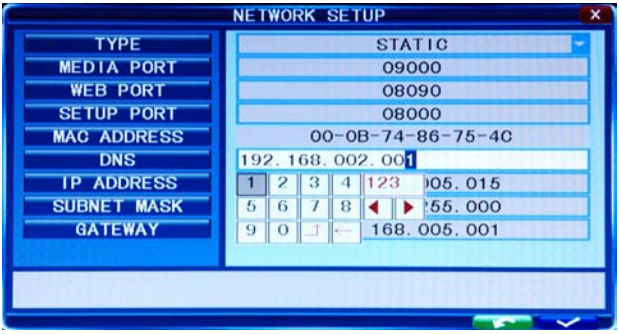
NOTE *The default IP addresses and port settings of your DVR may be different from those shown in this document. Always use network settings that are compatible with your network(s).*



5. On the **NETWORK** line, click the >> icon to open the NETWORK SETUP menu.



6. Click the ▼ icon at the right end of the **TYPE** line. From the dropdown list, select either DHCP, PPPOE, or STATIC for the IP network setup. If you select DHCP or PPPOE, the DVR will acquire its network settings automatically. If you select STATIC, you can configure your network settings manually by clicking on the entry field and using the virtual keyboard to enter data. See the following screen capture.



NOTE *The MEDIA PORT, WEB PORT, and SETUP PORT numbers do not need to be changed unless these numbers conflict with other devices on your network.*

7. Use the values in Table 1 to configure your DVR with a DNS address, IP ADDRESS. SUBNET MASK, and GATEWAY address. You can also use any other values that are compatible with your local network.

8. After configuring your network settings, click the confirm icon (✔) in the lower right corner of the screen, then click the **Confirm** button in the **Note** window.

9. Press the **MENU** button on the front panel, or right click anywhere to return to the SETTINGS menu.

10. At the **SETTINGS** menu, click the **SYSTEM** tab, then click the >> icon on the **MAINTENANCE** line.

11. Click the >> icon on the **REBOOT** line, then follow the on-screen prompts to reboot your DVR.

12. Connect an Ethernet cable between the LAN port on the back of your DVR and any open port on your router.

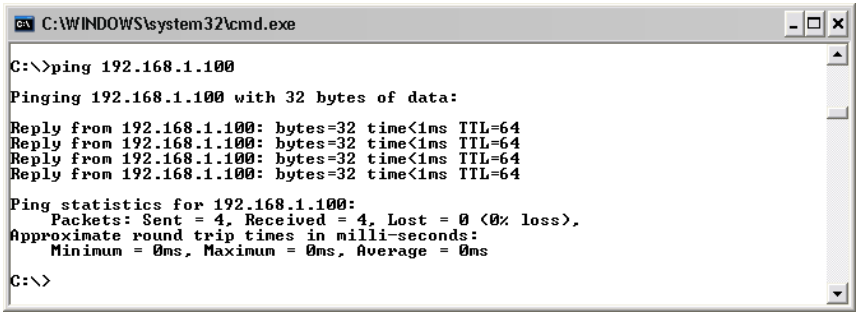
13. At your PC, use the **ping** command with your DVR's IP address to confirm that you can connect to your DVR from your PC. At the DOS prompt in the Command window, enter:

    ping <IP address>

    where <IP address> is the new DVR IP address. For example, if your DVR's IP address is now 192.168.1.100, enter

    ping 192.168.1.100

14. Examine the response to the ping command. If the response is "**Reply from ...**" and NOT "**Request timed out.**" as before, your DVR is now configured on the network.



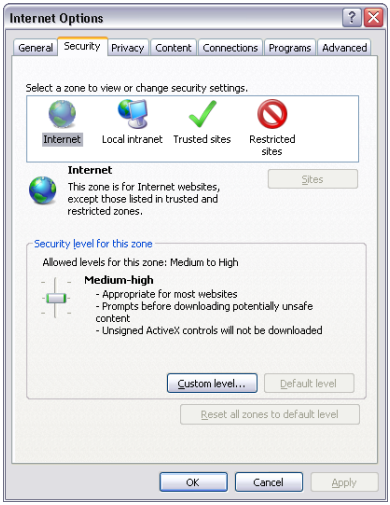
4.1.1 Verify local network connectability with IE

After your DVR is setup on a local network, IE is used to verify connectability across the LAN. It also increases flexibility for monitoring and configuring your security system.

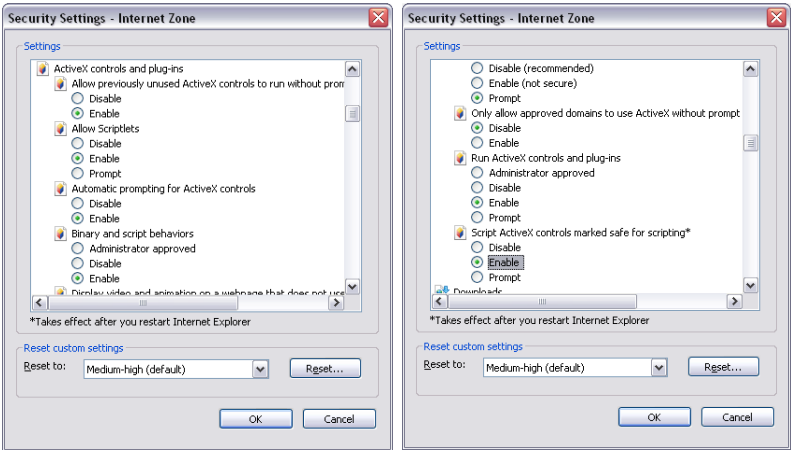
Before you can connect to the DVR with IE, the (default) security settings in IE are modified and an additional software is installed.

1. At your PC, load IE.

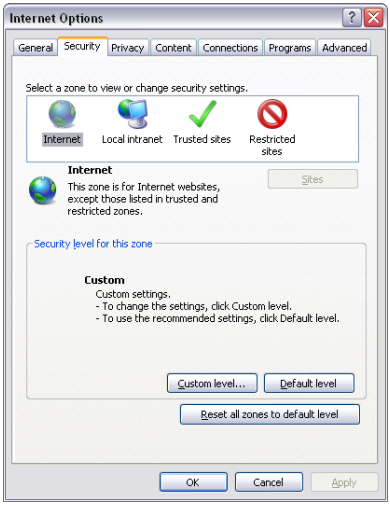
2. Open the IE **Tools** pull-down menu and select **Internet Options**. Click the **Security** tab.



3. Click the **Custom Level...** button. In the Settings list, change the following settings to **Enable**:
   - Automatic prompting for ActiveX controls
   - Initialize and script ActiveX controls not marked as safe for scripting
   - Script ActiveX controls marked safe for scripting
   - Binary and script behaviors
   - Download signed ActiveX controls
   - Download unsigned ActiveX controls
   - Run ActiveX controls and plug-ins



Click **OK**, then click **YES** in the Warning window.

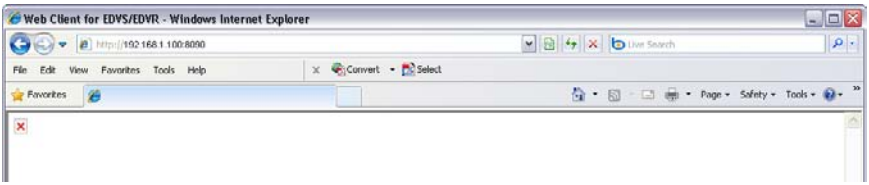


In the **Internet Options** window, click **Apply**, then click **OK** to close the window.

NOTE *If your computer operating system is Windows Vista or Windows 7, User Account Control can interfere with the normal operation of the DVR user interface. To disable UAC, open the Control Panel > User Account > User Account window, clear the* ***Use User Account Control (UAC) to help protect your computer*** *check box, then click* ***OK****. A computer restart may be required.*

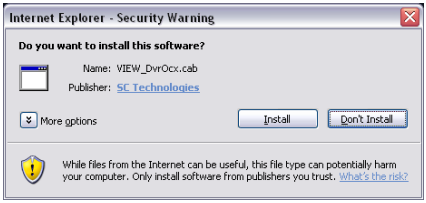
4. In the IE URL field, enter the IP address assigned to your DVR with the WEB PORT number configured in your DVR (in the example above, the default WEB PORT is 8090). Using the example shown above, enter:

   192.168.1.100:8090

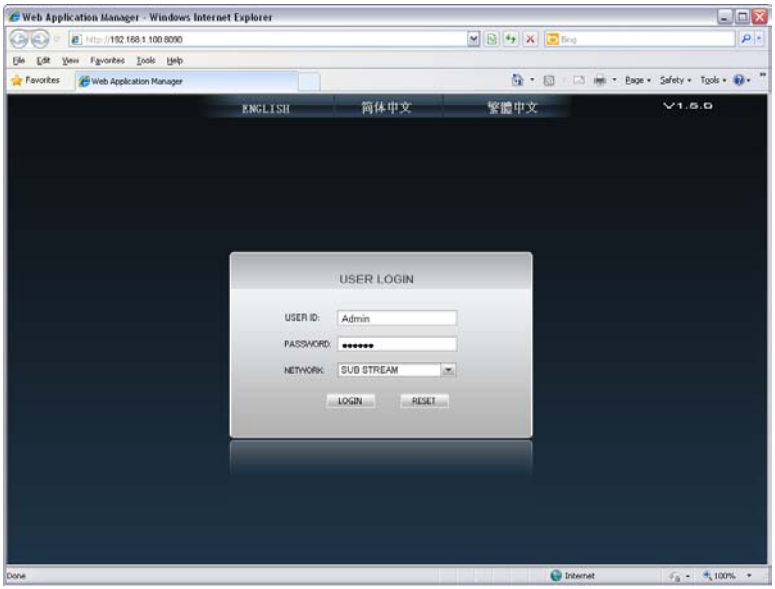


NOTE *After sending the URL, IE may prompt you to load the Chinese Simplified language pack. You can click Install or Cancel. If you click Cancel, the message will reappear again when you logout and login.*

5. During the first connection to the DVR, a security warning to install software appears. Click **Install** and follow the on-screen instructions to complete the installation.


Internet Explorer - Security Warning
Do you want to install this software?
Name: VIEW_DvrOcx.cab
Publisher: SC Technologies
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

6. When the Login screen opens in the browser, enter the administrator **USER ID** and **PASSWORD**, then click **Login**. The default values for the administrator account are **Admin** and **888888**.



7. After login, the DVR web display will appear. To see images from the cameras connected to your DVR, click the **Open All** button in the lower left corner of the screen.

NOTE *The following sections provide a generic procedure for setting up a 4-channel system with a DMR90U series DVR. If you are setting up an 8- or 16-channel system, the displays you see may be slightly different. For example, if you have an 8-channel DVR, the initial DVR camera channel display will be an 8-split screen, one split for each channel.*

NOTE *When viewing the DVR network browser interface, if the webpage appears normal but the camera images are scrambled, check your computer's video adapter settings, or call Supercircuits Support at 1.800.335.9777 for assistance.*

4.2 Accessing your DVR from the Internet

The remote viewing capabilities of your DVR allow you to access and control it from anywhere in the world via the Internet. Your DVR must be setup on a LAN before this capability can be enabled, and the LAN must have a high-speed connection to the Internet for efficient data transfer to occur. This procedure requires that the network router be configured for port forwarding. Only general instructions for setting up this capability are included here.

NOTE *Supercircuits provides complete technical support for viewing your DVR within your LAN. However our support team cannot assure complete technical assistance for products from other manufacturers, such as routers and modems. Refer to your product documentation, or contact your service provider for support on setting up port forwarding.*

1. Configure your router for port forwarding to the DVR using the network information included in Table 1. For instructions, refer to the user documentation for your router and/or the information and service provided at **http://portforward.com**.

Port forwarded for the DVR:

By default, your DVR uses port 8090 for the web port, 9000 for the Media port, 10510 for the Mobile server port, and 8000 for the Setup port. If any of these ports are assigned to another device on your network, configure your DVR to use a different port. Do not assign the ports used by your DVR for Web, Media, Setup or Mobile to any other device on your local network. Also, when choosing a port for port forwarding an Internet connection to your DVR, do not use any of these ports, or other ports on your network already in use.

2. Determine if your router/modem has a dynamic IP address (one that can change arbitrarily, often used by internet service providers (ISPs) for cable/DSL modems) or static IP address (unchanging). If you are unsure, contact your ISP for this information. If you use a dynamic IP address for your modem, go to step 4.

3. To find the static IP address assigned to your LAN, go to **http://www.whatismyip.com/** from a PC on the same network (LAN) as your DVR. The IP address displayed is the IP address you will use to log in remotely. Keep this in your records. Skip to step 6.

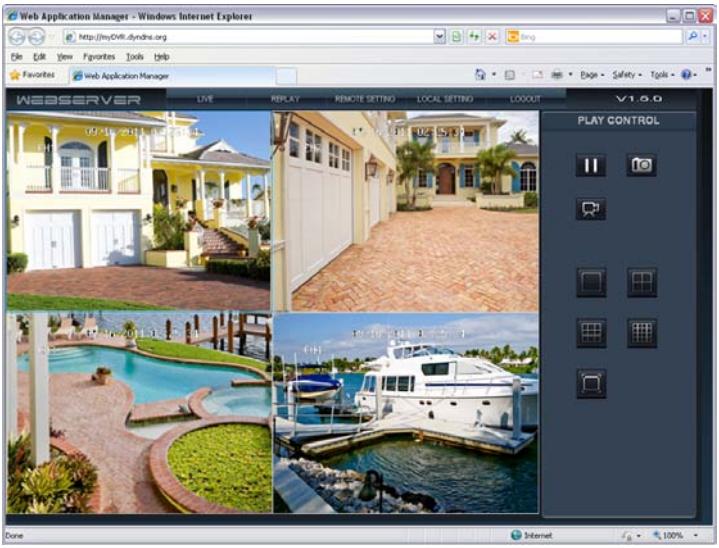
Static IP Address:

4. If you have a dynamic IP address, it is convenient and recommended to use a dynamic name server service, such as **http://www.dyn.com/** (a free service), to setup a remote connection with a fixed hostname to your DVR. To setup an account, follow the instructions on the website.

5. Whether you have a static IP address, or you set up a Dyn account for a dynamic IP address, the following are different ways to view your DVR from a PC on the Internet:

   a. In the URL field of your Internet browser, enter the current IP address of your modem with router port number (port forwarded for your DVR) assigned to your DVR in the format: **http://<IP address:port>** For example, if the IP address of your modem is 190.180.170.32 and the port forward number is 85, enter: **http://190.180.170.32:85**

   b. Access the DVR using your Dyn account and hostname.


Web Application Manager - Windows Internet Explorer
http://myDVR.dyndns.org
File Edit View Favorites Tools Help
Favorites
Web Application Manager
Page Safety Tools
WEBSERVER
LIVE
REPLAY
REMOTE SETTING
LOCAL SETTING
LOGOUT
V1.5.0
PLAY CONTROL
Done
Internet
100%

SECTION 5
Accessing Your DVR With a Web Browser

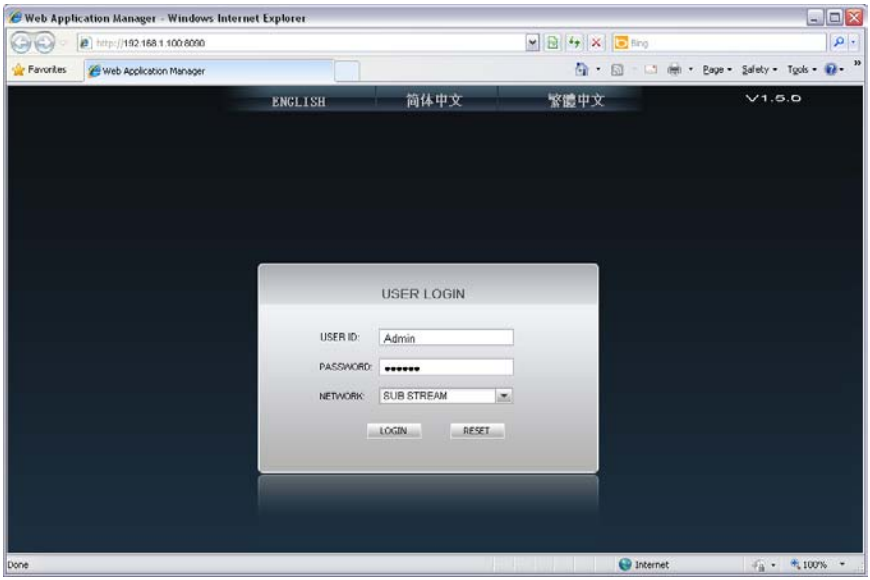
After your DVR is "networked" for LAN and Internet access, it can be monitored and configured remotely. Also, you can search for and download video clips to your remote computer. The examples presented herein access the DVR through the Microsoft Internet Explorer (IE) browser.

5.1 Connecting to your DVR with IE

There are different ways to connect to your DVR, depending on how it is networked.

- If the computer you are using to access your DVR is on the same local network as your DVR, you can access it with Microsoft Internet Explorer (IE) using placing the IP address and Webport of the DVR in the IE URL field. For example, the URL address HTTP://192.168.1.100:8090 uses an IP address of 192.168.1.100 and a webport number of 8090.
- If you are accessing your DVR from the internet, the network modem/router where your DVR is installed is 77. 67.214.84, and your DVR is configured on the router port of 2000, the URL for your DVR would be HTTP:// 77. 67.214.84:2000.
- If the Internet Service Provider you are using assigns a dynamic (changing) IP address to your modem/router (typical), you can establish a fixed URL for your modem/router using a web-based service such as DynDNS.com. With that service, your DVR might be addressed as HTTP:///JDSmithDVR.dyndns.com.

After connecting to your DVR with IE, a login window will appear.



In the Login window, enter a **USER ID** and **PASSWORD**, then click **LOGIN**. The USER ID "Admin" has complete privileges to manage the DVR remotely. The default password for USER ID Admin is "888888".

5.2 Live screen

After logging in to your DVR, the Live screen will appear. The Live screen displays real-time video from the DVR.

Using the buttons in the right frame, you can stop viewing live video, snap a photo of one of the video channels, or record video from all channels. You can also view all four channels at the same time (see above screen capture), only one channel on the screen, or expand one channel to fill your monitor screen.

- **Stop View**: Click the Stop View icon to stop viewing live video.
- **Snap**: Click the Snap icon to capture a photo of the selected video channel. To select a video channel on a multi-channel display, click the image. The selected channel is framed with a blue border. The photo is saved in JPG format at the location shown in the pop-up window.
- **Record**: Click the Record icon to record the channels displayed. Each channel is recorded individually. Recordings are saved in the location shown in the pop-up window. These video files are saved in AVI format, and can be played with any AVI compatible player such as HsPlayer (provided on the mini-CD with your DVR), VLC Media Player, or Windows Media Player.

5.3 Replay window

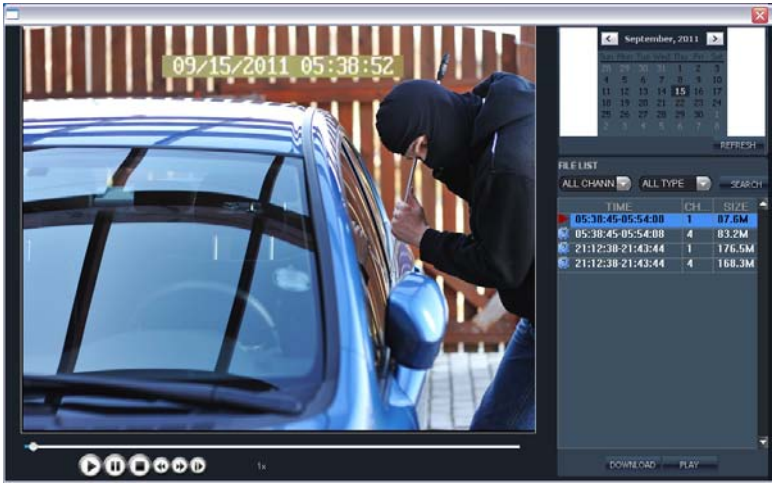
The Replay window enables you to play and download recorded video. To use this feature:

1. In the calendar frame, click the date when the video was recorded. In the following example, September 15, 2011 was selected.

2. From the list that appears, click the label for video file you want to play or download. The labels indicate the time of day when the video was recorded, the channel that was recorded, and the size of the video clip.

3. Click the **PLAY** button at the bottom of the screen. Use the play control buttons below the view window to control the playback.

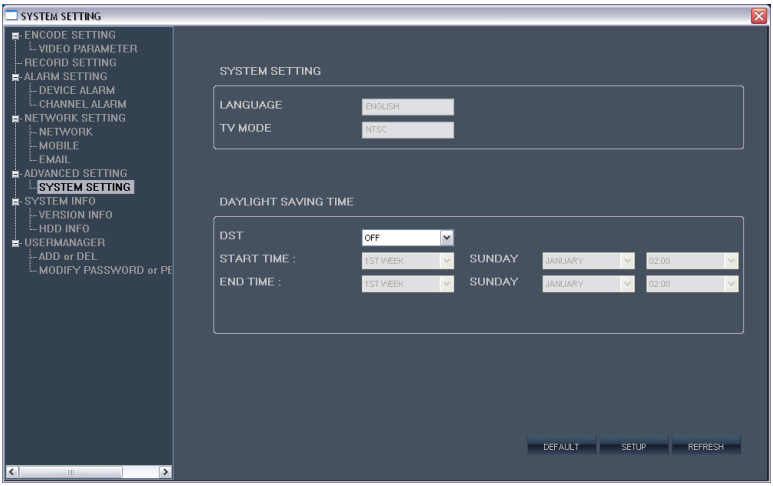
   To download the video clip to your computer, click **DOWNLOAD**. The clip will be saved in the location specified in the LOCAL SETTING screen, the download progress will appear at the bottom of the view window, and the path and name to the video file will be displayed with the download is complete.



4. Click on another file to play, or click the ☒ icon in the upper -right corner to close the Replay window before selecting another screen or window.

5.4 Remote window

The Remote window allows you to configure your DVR from your local computer if you logged in with the Admin USER ID. To expand the menu tree and open a configuration menu, click the "plus" box to expand the tree, then click the menu you want to see.

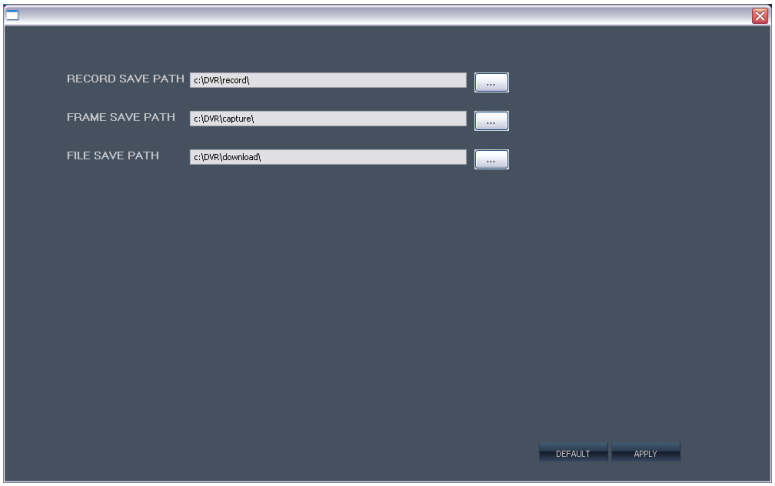


The options on these screens are identical to those in the DVR menu system. Refer to the chapters **Installing the System** and **DVR Menu System** in this document for more information. After making changes to a Remote setting menu, click the **SETUP** button at the bottom of the window to commit the changes.

Click the ☒ icon in the upper-right corner to close the Remote Setting window before selecting another screen or window.

5.5 Local setting

In the Local Setting window, you can specify the locations on your computer where you want to save the recordings, frames, and files from your DVR.



Click the ☒ icon in the upper-right corner to close the Remote Setting window before selecting another screen or window.

5.6 Logout

Clicking LOGOUT returns you to the USER LOGIN screen.

SECTION 6
KWeye Smartphone App

KWeye is a free smartphone app for use with your Supercircuits model DMR90 series DVRs (SY703XX, SY705XX, SY807XX series systems). Its features include:

- Compatible with most models of these phones: Apple iPhone, iPad, and iPod Touch, Google Android, Symbian, Windows Mobile, Blackberry
- Unlimited video on cellular and WiFi networks
- Supports multi-channel video encoders and Pan, Tilt, and Zoom (PTZ) controlled cameras
- Support for authentication
- Direct stream connection (video does not pass through a 3rd party server)
- Snapshot capability (while viewing live stream) to save to your local photo gallery
- Support for landscape and portrait views
- Ability to change IP address and port as needed for internal and remote users

This guide includes installation and use of KWeye with the Apple and Google smartphones. For more information, go to:

- iPhone, iPad, and iPod touch: http://itunes.apple.com/us/app/kweye/id412413785
- Android phones: https://market.android.com/details?id=com.KWeye
- For other smartphones, contact Supercircuits Support at: 1.800.335.9777

To use this application, your DVR network must be setup to allow access from the Internet.

6.1 Installing KWeye

6.1.1 Installing KWeye in iPhone

KWeye can be acquired from the iTunes **App Store > Productivity** group. It can be downloaded and installed directly to your iPhone, or downloaded into a computer with iTunes, then installed on your iPhone. Before downloading applications from the App Store you must create a store account.

- To download and install **KWeye** directly to your iPhone:
  - Connect your iPhone to a high-speed network, such as a WiFi network (to shorten download time).
  - Open the **App Store** application on your iPhone, then search for **kweye**.
  - Download and install **KWeye** as you would any application.

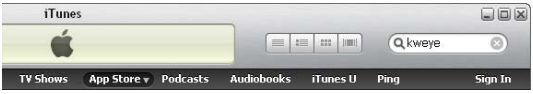
App Found

AT&T 3G
14:00
98%
Search
Info
KWeye
SUN JIAN
No Ratings
FREE
KWeye allows iPhone users to view and control live video streams from cameras and video encoders.
Features:
iPhone and iPod Touch compatible.
Unlimited video on cellular and wifi.
Support MultiChannel video encoder.
Support for authentication.
Support for Pan, Tilt, & Zoom control.
Direct stream connection. No video going through 3rd party servers.
Snapshot capability (while viewing live stream) to save to your local photo gallery.
Support for landscape and portrait mode.
Ability to change ip address and port as desired for internal and remote users.
Featured
Categories
Top 25
Search
Updates

Ready to Install

Installed

- To download **KWeye** to your computer then install it on your iPhone:
  - Download and Install the latest version of Apple iTunes if not already installed. You can download iTunes from **ww.apple.com/itunes/** A computer restart may be required.
  - Open iTunes.
  - Click the **iTunes Store** item in the list on the left, then login to your iTunes Store account. If you don't have an iTunes Store account, follow the on-screen instructions to create one.
  - In the Search Store field in the upper right corner of the screen, enter **kweye.**



  - After **KWeye** is found, click the **Free App** button, then click **Buy** in the popup window to download the application. **KWeye** will appear in your iTunes **LIBRARY** > **Apps** list.

— After downloading the app, attach your iPhone to your computer, sync the application to your phone.

6.1.2 Installing KWeye in Android

To install applications using Android Market perform the following steps:

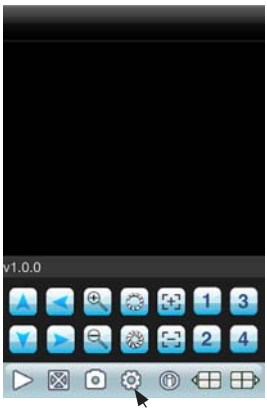
— With your Android phone, go to the Applications menu and open **Android Market**.
— Search for the application **kweye**
— When the application is found, click on the **KWeye** icon to display details of the app.
— To install **KWeye**, click Install and follow the on-screen instructions.

6.2 Set up access to a DVR

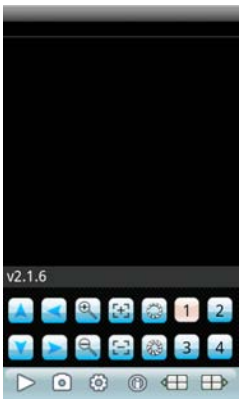
Usage and functionality of the **KWeye** app is the same on both iPhone and Android phones. However, the screens vary slightly between the two systems. To use **KWeye**:

- Tap the **KWeye** icon to open the app. The **KWeye** splash screen will appear.
  (**NOTE**: The following images were captured from an Android smartphone. iPhone screens are functionally identical.)

iPhone KWeye Initial Screen



Android KWeye Initial Screen

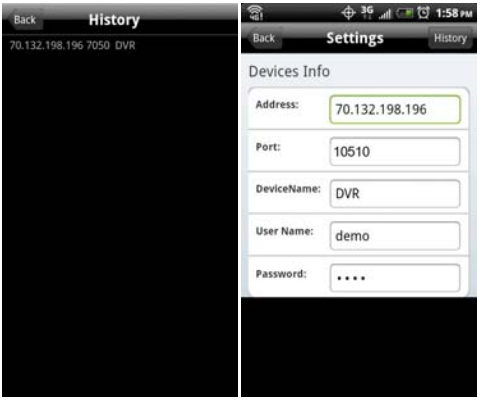


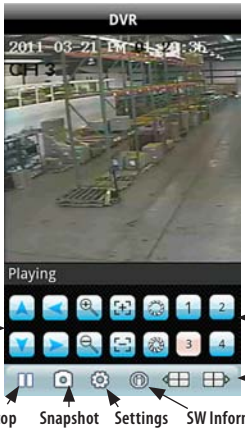
- Tap the **Settings** icon. The splash screen will change to the **Settings** screen.

- In the **Device Info** fields, enter the appropriate information for your DVR:
  - **Address**: IP address used to connect to your DVR modem from the Internet, or the URL of the DynDNS server you use.
  - **Port**: Mobile monitor server port number configured in the DVR's network mobile submenu. The default port number is **10510**.
  - **DeviceName**: A name you use to identify your DVR.
  - **UserName** and **Password**: Enter the username and password you use to log into your DVR. **NOTE**: You may have to slide the screen up to display the **UserName** and **Password** fields.
- After completing the entries in the **Settings** menu, tap the **Back** button to test the settings and connect to your DVR. When connecting to your DVR, the Device Info settings will be logged in the **History** screen for easy retrieval.

6.3 Using KWeye

- If KWeye is not running, tap the **KWeye** icon to open the app. The **KWeye History** screen will appear.
- In the **History** screen, tap the entry for the DVR you want to connect to open. The Settings screen will open.
- To use the **Device Info** in the **Settings** screen to access your DVR, tap the **Back** button in the upper left corner.
- Tap the **Play** button to start watching video from the DVR.





- To view a particular camera, tap the **Select Channel** button for the camera channel. If you are connected to an 8- and 16-channel system and the channel button is not shown, tap a **Switch Channel Group** icon (next group, , or previous group), to change the **Select Channel** buttons until the channel number is shown, then tap the button for the channel.

- Rotate the phone 1/4 turn for a landscape view of the channel.

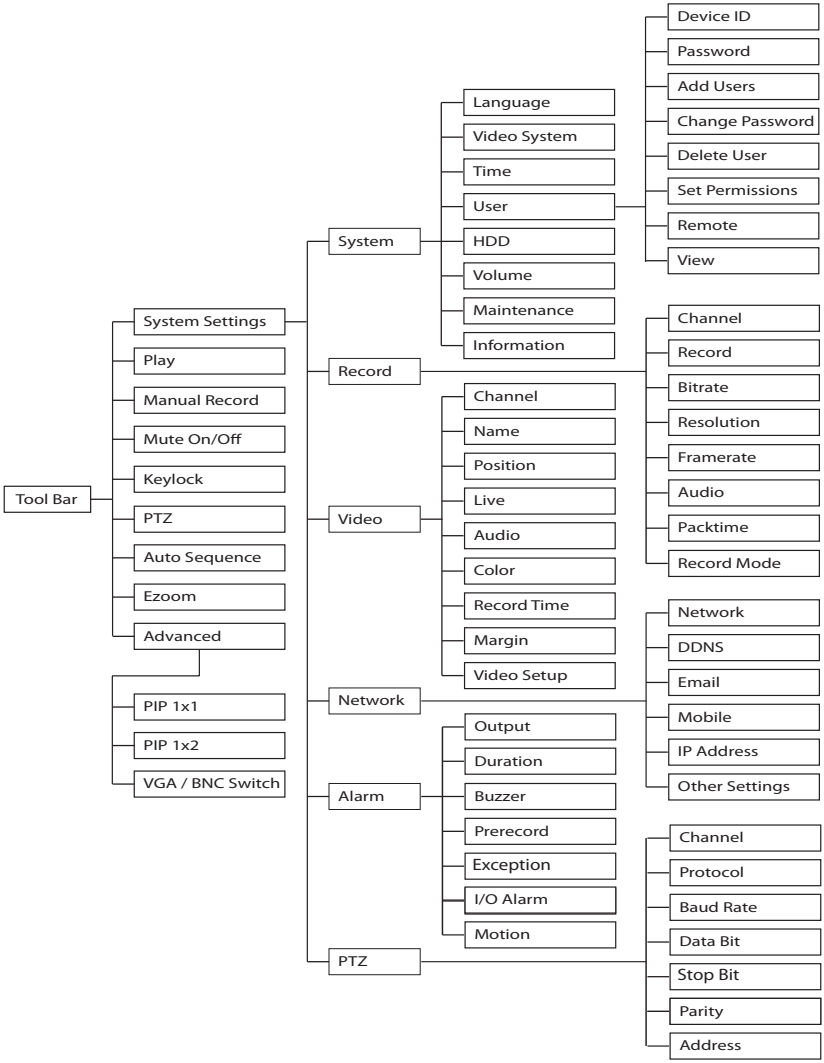
- To restore the app control buttons, orient the phone for a portrait view.

- To exit the application, press the smartphone **Home** or **Back** button.

SECTION 7
DVR System Menus

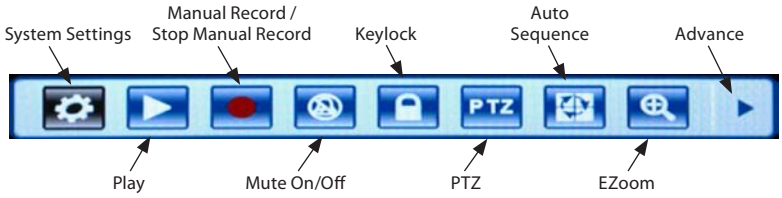
This section includes a detailed description of the DVR menu system. It is included for reference only.

7.1 Menu tree



7.1.1 Tool Bar

The Tool Bar provides icons for accessing menu features.



Tool Bar

Tool bar icon functions:

System Settings: Opens the system configuration menu system.

Play: Search, playback and backup recorded files.

Manual Record / Stop Manual Record: Click to start or stop manual recording.

Mute On/OFF: Controls audio mute.

Keylock: If the password is enabled, click "KEYLOCK" to logout of the system.

Auto Sequence: Click to enable auto-sequencing, the channels with images will be in sequence: channel 1, channel 2, channel 3, channel 4, channel 1. Channels without images won't appear in the sequence. To interrupt auto sequencing, press any button or click the mouse while in auto sequence mode.

EZoom: Click to enter zoom mode, then click left key and drag to select the area that you want to magnify. Right click to exit.

Advance: Click to open the Advance tool bar.

Hide Advance: Close the Advance tool bar.

PIP 1x1: This feature displays a small picture in a full screen.

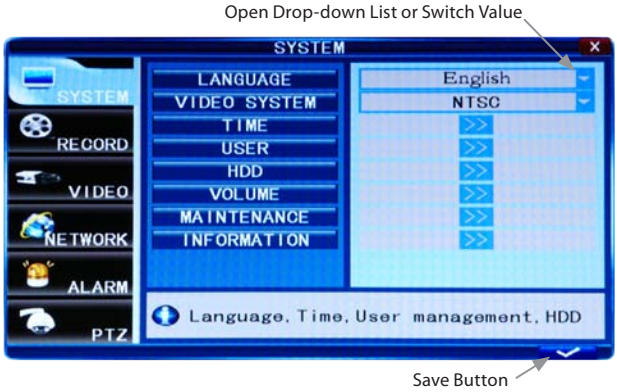
PIP 1x2: This feature displays two small pictures in a full screen.

VGA/BNC Switch: Click to switch the video output of the DVR from VGA to BNC or BNC to VGA.

7.1.2 Menu options

To modify/adjust system configuration, click the **System Settings** icon on the Tool Menu.

Clicking the System Settings icon opens a window with 6 tabs: System, Record, Video, Network, Alarm, and PTZ. These tabs provide general system settings for operating your DVR.



Titles of the menu list items are located on the left, and the corresponding changeable or non-changeable values are represented in the fields to the right. You can:

- Select the values from the list (toggling the preset data by pressing the arrows on the side of the field);
- Select the values from the drop-down list (open the drop-down list by clicking the down arrows on the side of the field);
- Input the required data after entering a customized window by pressing the [>>] button in some of the fields;
- Familiarize yourself with the existing non-changeable settings.

When entering data into the fields using the remote control directional keys or the DVR front panel, and when positioning the mouse over them, a short description of the setting will appear at the bottom of the window.

Several tabs have options that are spread across more than one window. You can move from window to window by pressing the "**>>**" button.

7.2 System menu

The System menu (see above) contains parameters for setting the basic configuration of your system. it includes the following options:

7.2.1 Language

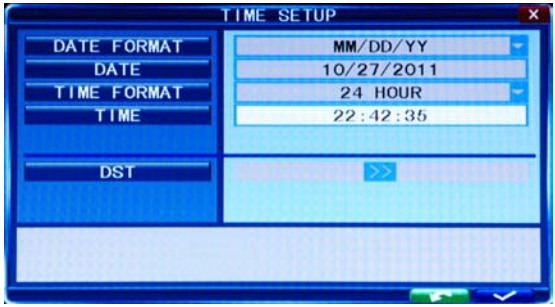
Use this option to change the language of the DVR menu text and the On-Screen Display.

7.2.2 Video System

Set the system output to the camera input (PAL or NTSC). **Note**: The device will restart when you modify the camera mode.

7.2.3 Time Setup

Click **Time** [**System settings** -> **System** -> **Time**] to open the Time setup menu.



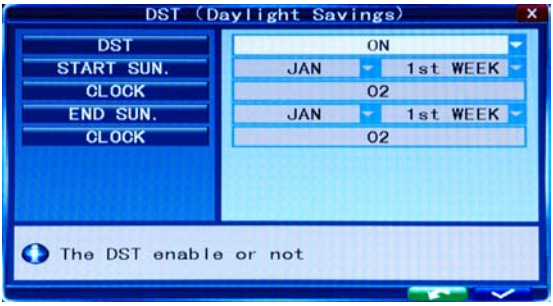
DATE: Set up system date using the number keypad.

DATE FORMAT: Click the down arrow to switch the date format. Options: YY-MM-DD, MM/DD/YY.

TIME FORMAT: Click the down arrow to switch the time format. Options: 12 HOURS to 24 HOURS.

TIME: Set up the system time using the number keypad on the remote control.

DST: Daylight saving time. ON means DST clock change is enabled. You can setup the start time and end time of DST. For example, in the right figure above, the start time is at 02:00:00 Sunday of the first week on January. Similarly, setup the end time.



Note: After changing settings, click the "check" (save) button in the lower right corner of the screen.

7.2.4 User management

Click **User** [**System settings** -> **System** -> **User**] to open the user management setup menu. This menu allows user to set the device ID for the DVR and to change the system password. After turning on password and clicking the "check" button in the lower right corner of the window, exit the system and login again to manage other users.

DEVICE ID: Set Number to identify device. The default name is "000000"

PASSWORD: Change the password. The following settings can be configured only by a user with administrative privileges.

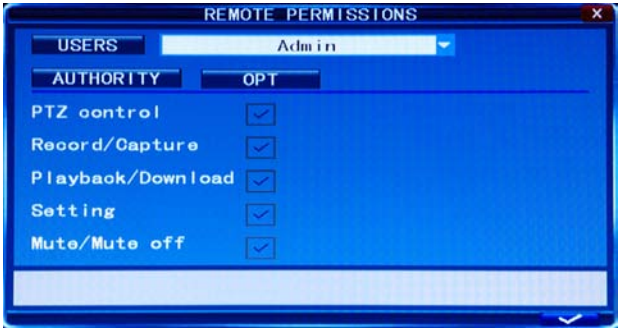
ADD USERS: To add new user, enter a new username and password. Password must be entered in both the Password and Confirm Password fields. Password cannot exceed 6 digits.

CHANGE PASSWORD: Select the username whose password you want to change, then enter the old password, the new password, and the new password again in the **Confirm Password** field.

DELETE USER: In this window, select the user you want to delete, then click the "check" button in the lower right corner of the window.

SET PERMISSION: For each user, set the permissions for use of the system. Permissions include: Auto sequence, Manual REC, Playback/Backup, Ezoom, PIP, Update/Reboot/Maintenance/Format/Default, etc.

REMOTE PERMISSION: This feature must be setup if operating the system remotely. Only users with admin privileges can set other user's remote permissions. These permissions include: Record/Capture, Playback/Download, and Setting. If password verification is enabled (marked ON, i.e. you must login with a password) you can setup seven user passwords and an administrator password.



Note: When Password is enabled, login to the system as an admin to manage user settings. The administrator's name (Admin) cannot be changed. Initially, two users exist: Admin and User1. The default password for Admin is "888888" and the default password for User1 is "666666".

If forget your password, you can reset the password by shunting the pin of block J17 on main board for 5 seconds while the system is running. However, **REMOVING THE COVER OF YOUR DVR WILL VOID THE WARRANTY.**

7.2.5 VOLUME

Click **VOLUME [System Settings -> System -> Volume]** to open the Volume setting window. In the Volume window, drag the slider left or right to decrease or increase the volume level.

7.2.6 HDD

Click **HDD** [**System settings** -> **System** -> **HDD**] to open the HDD (hard disk drive) management menu.

STATE: The HDD can have one of three possible "states": **OK**, **un-format**, and **No Disk**. If the HDD cannot operate normally (un-format or No Disk), an icon will be displayed on video live view window. If a new HDD is used by the DVR for the first time, the system will restart after the HDD is formatted.

TOTAL/FREE: Indicates total space available on the HDD.

FREE TIME: Indicates remaining recording time of the HDD.

OVERWRITE: Includes: CLOSE, AUTO, 1 HOUR, 3 HOURS, 1 DAY, 2 DAYS, 7 DAYS, 30 DAYS and 90 DAYS:

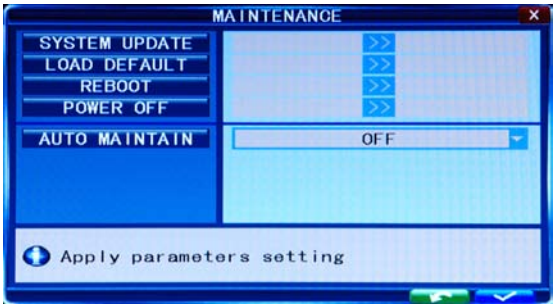
CLOSE: the recording stops when the hard disk drive is full. It will continue recording if "overwrite" is enabled.
AUTO: the recording continues and overwrites previous recordings when hard disk drive space is full.
2 DAYS: a recordings remains on the HDD for two days at most. After two days, a recording may be overwritten.
Other options: Similar to the 2 DAY option.

FORMAT HDD: Move the cursor to select the device, then press **HDD** to start formatting.

FORMAT USB: This function allows you to format a USB storage device.

7.2.7 Maintenance

Click **Maintenance** [**System settings** -> **System** -> **Maintenance**] to open the Maintenance setup menu.



SYSTEM UPDATE: To perform a system update:

1. Insert a thumb drive into a Windows PC USB port, then.
    a. Format the thumb drive for a FAT32 file system.
    b. Create a root directory on a thumb drive named “dvrupgrade”.
    c. Copy the update file to the “dvrupgrade” directory.
    d. Eject the thumb drive from the Windows PC.
2. Insert the thumb drive into a USB port on the DVR, then:
    a. Click the >> icon on the SYSTEM UPDATE line.
    b. Wait until the DVR recognizes the thumb drive.
    c. Press **Enter** to upgrade the firmware. The progress of the system upgrade will be displayed. After completing the upgrade, the DVR will restart. **NOTE**: The system upgrade usually requires more than two minutes to complete.

LOAD DEFAULT: Restores all the system configuration to the factory settings.

REBOOT: Use this function to restart the DVR.

POWER OFF: Use this function to power off the DVR.

AUTO MAINTAIN: When AUTO MAINTAIN is **ON**, you can set a time for system to perform a restart.

7.2.8 Information

Click **Information** [**System settings** -> **System** -> **Information**] to open the Information display. This display includes: device type, software version, release date, import parameter and export parameter.

Use Export Parameter to save that information to a USB disk. Parameter information must be exported before it can be imported (restored).

7.3 Record

To open the Record menu, move the cursor to **RECORD** (the icon will be highlighted when selected), then press **Enter.** You can use the direction keys and cursor to change the options.

7.3.1 Record Channel

With this option you can select the camera (channel) number whose settings you want to modify. If you want the changes to apply to all available channels, select "All". Make the selection by pressing the arrow buttons; the options include CH1, CH2, CH3, CH4 and ALL.

7.3.2 Record

Record **ENABLE** indicates that the channel is enabled for recording.

7.3.3 Bit-rate

There are three options: GOOD, NORMAL and LOW, corresponding to HIGHEST, HIGH and NORMAL data stream standard. The bit rate of each channel recorded can be adjusted independently.

7.3.4 Resolution

Record Resolution indicates the setup resolution and code rate for recording. There are three options: D1, HD1 and CIF resolution. The resolution of each channel recorded can be adjusted independently.

7.3.5 Frame Rate

You can set the recording frame rate (frames per second, fps) for the current channel. The higher the record frame rate, the smoother the movement you will see in playback mode. The frame rate of each channel can be adjusted independently.

For PAL video output format, the default system resolution is CIF, and the default frame rate is 25 fps for each channel. With this setting, the system will record 100 fps with all channels. The frame rate can be set from 1 fps to 25 fps per channel.

For NTSC video output format, the default system resolution and frame rate is CIF @ 30 fps. With this setting, the system will record 120 fps with all channels. The frame rate can be set from 1 fps to 30 fps per channel.

7.3.6 Audio

Select OPEN or CLOSED. OPEN indicates that the audio recording for all channels is enabled; CLOSE indicates that audio recording is disabled.

7.3.7 Packtime

Record Pack Time is the time length of video segments saved during the backup of recorded video to an external device when alarm recording is disabled. There are four options: 15 min, 30 min, 45 min, and 60 min.

7.3.8 Record Mode

Record mode includes two general categories: **ALWAYS** and **SCHEDULE**.

ALWAYS: indicates that the DVR will record the channel selected continuously.

SCHEDULE: This setup allows you to create a weekly schedule for recording. This assures that only selected events are recorded on the HDD. For example, you may set up the system to record continuously during business hours, record at lunch time only when an alarm is triggered, and record at night when motion is detected and/or an alarm is triggered.
NOTE: Manual recording continues until stopped by the operator. It overrides all settings.

CHANNEL: You can select all channels or just one channel. There are three modes for recording: ALARM, NORMAL and NO RECORD. Different colors indicate different recording modes: Red indicates alarm record, green indicates normal record, gray indicates no recording.

To set up weekly schedules, click on the box of the recording mode you want (**Alarm**, **Normal** or **No record**), then click each box in the schedule time line that you want to apply the mode to. You can also left click and drag a frame over boxes in the schedule time line that you want to apply the mode to. You can use the [FROM-TO] pull-down menus and COPY button settings to repeat setting from one day to another day, or to all days.

After you setup the schedule, activate it by clicking the "check" button in the lower right corner of the window.

NOTE *When you select the ALARM option, it is necessary to set the motion detection sensitivity and area. Please refer to Motion Detect on page <OV>,for details. Configure the alarm triggering settings before selecting alarm recording.*

To restore to default settings, scroll to the "back" button in the lower right corner of the window, then press **ENTER**.

To save the new settings, scroll to the "check" button in the lower right corner of the window, then press **ENTER**.

7.4 Video

Move the cursor to **VIDEO** (the icon will be highlighted when selected), then press **ENTER** to enter the video menu. You can use the direction keys and cursor to change the options.

7.4.1 Video Channel

Select the channel to setup.

7.4.2 Name

You can assign a name to each channel. The channel name can be up to 9 characters in length.

7.4.3 Position

You can set the position where the channel name appears in the view window. Press **ENTER** to switch from U-L, D-L, U-R, D-R and OFF.

7.4.4 Live

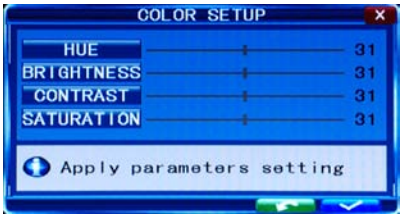
Set to **ON** to view the channel in live mode; set to **OFF** to disable live viewing.

7.4.5 Audio

If the camera channel you are configuring is associated with a microphone,set up audio inputs for the current channel. The option includes UNBIND, CH1, CH2, CH3, and CH4. For example, if the current channel is CH1 and AUDIO is set at "UNBIND", there will be no audio for CH1; if the current channel is CH1 and the "AUDIO" is set at "2", the audio of Audio input 2 will play with CH1.

7.4.6 Color

Click **Color** [**System settings** -> **Video** -> **Color**] to open the video color adjustment tool. With this feature, you can adjust camera color attributes for the best image rendition. By default, the values are set to a midpoint (31).



Press ▶ / ◀ key or drag the set bar to adjust the video attributes. Clicking **DEFAULT** button to reset the color parameter values, click the "check:" button to save your settings.

7.4.7 Record Time

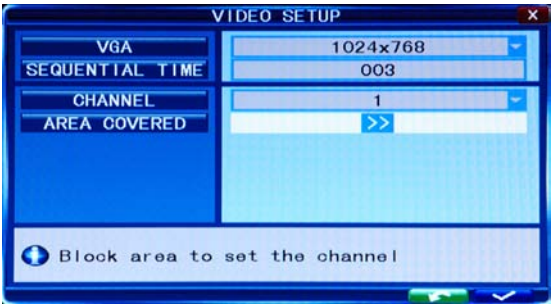
You can define which information will be recorded onto the video as the OSD (On-Screen Display) string.

7.4.8 Margin

Click **Margin** [**System settings** -> **Video -> Margin**] to open the video margin setup menu. You can creation a margin (frame) around the video screen using this option. Margins compress the video image. No area of the video image is obscured.

7.4.9 Video Setup

Click **Video Setup** [**System settings -> Video** -> **Video Setup**] to open video setup menu.



VGA (display resolution): Options include 1024 x 768 (XGA) and 1280 x 1024 (SXGA).

NOTE *The DVR will restart if the display resolution is changed.*

Sequential Time (SEC): This sets the pause time when auto-sequence is enabled. Value: 1 – 300 seconds.

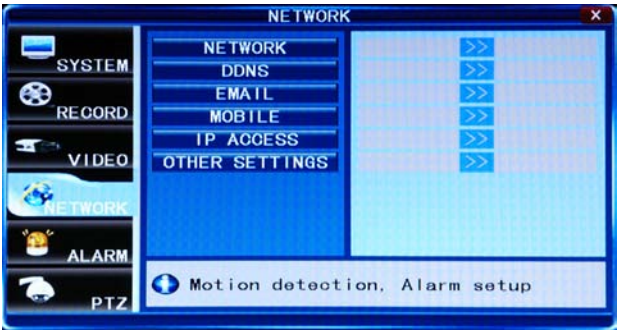
Channel: Select the channel to setup for privacy. Privacy areas are configured through the Area Covered options.

Area Covered: Set privacy area. Up to four areas of privacy can be configured for each channel. Privacy areas appear as black rectangles over portions of the video image that are setup as "private."

7.5 Network

Move the cursor to **NETWORK** (the icon will be highlighted when selected), and press **ENTER** to open the Network configuration window. In this window, you can configure network, DDNS, email, and mobile access settings.

NOTE *The default IP addresses and port settings of your DVR may be different from those shown in this document. Always use network settings that are compatible with your network(s).*

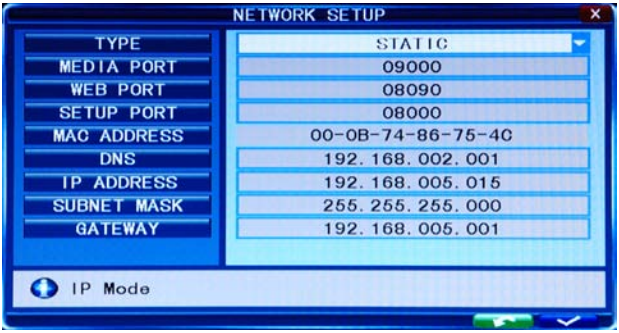


7.5.1 Network Setup

After selecting network mode, static, DHCP, or PPPOE allocation, and setup the web port, you can access the DVR remotely across the internet.

STATIC network settings

When selecting STATIC allocation, you must enter the IP address, subnet mask, gateway, and a web port.



MEDIA PORT: Port used to transfer video data from the DVR to a client.

WEB PORT: Sets up the port for the IE browser via HTTP. The default web port is 80.

SETUP PORT: This port number is fixed at 8000. It cannot be changed.

DNS: Press **ENTER,** then enter the domain name sever address.

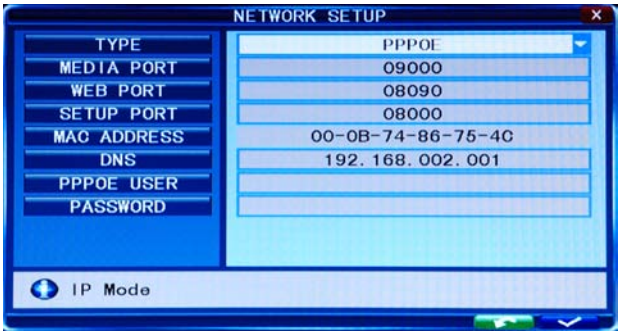
IP ADDRESS: Press **ENTER,** then enter the IP address.

SUBNET MASK: Press **ENTER,** then enter the subnet mask.

GATEWAY: Press **ENTER,** then enter the gateway address.

PPPOE network settings

When selecting PPPOE, enter the PPPOE USER and PASSWORD provided by your ISP.



MEDIA PORT: Port for private protocol between the DVR and a client PC. The default is 9000. If this port is used by the computer for other communications, change the default value to an unused port.

WEB PORT: Sets up the port for the IE browser via HTTP. If this port number is changed, append the port number to the IP address when connecting to PC to the DVR. For example, the WEB port is changed to 8088 and the DVR IP address is 192.168.15.145, the URL for the DVR (across the same subnet) is http://192.168.15.145:8088.

SETUP PORT: This port is fixed and cannot be changed. It is set to 8000.

MAC ADDRESS: The hardware address of the network interface circuitry. This address fixed and cannot be changed.

PPPOE user and password: Enter the PPPOE username and password provided by your internet service. Click the "check" button in the lower right corner of the window to reboot the DVR. After rebooting, the device will save it and set PPPOE as default network type. The IP address will be configured as a dynamic IP address.

DHCP network settings

When selecting DHCP, the DHCP server will assign the DVR IP address and other network settings. When you select DHCP and save your configuration, the DVR will connect to the DHCP server and acquire its network settings.

7.5.2 DDNS Setup

Move the cursor to DDNS SETUP and press **ENTER** to open the DDNS Setup menu.

DDNS: Select either ON and OFF. If a DDNS server is available, select **ON**.

SERVER: Select one of the three providers: **3322**, **dyndns**, or **perfecteyes**.

HOST NAME: Enter the name of the host server.

USER NAME: Enter the name of the user establishing the DDNS server account.

PASSWORD: Enter the password associated with the USER NAME.

7.5.3 Email Setup

Move the cursor to **EMAIL SETUP** and press **ENTER** to open the Email Setup menu.

SSL: SSL is a security link transport protocol. You can encrypt your email messages with SSL to prevent hackers from monitoring your communication information and your password. Set SSL to **OPEN** if using a Gmail.com server, and set it to **CLOSE** if using another mail server. If the settings you chose do not work, contact your mailbox website where to get an SMTP server and SSL for the mail box.

INTERVAL: This indicates the time interval for sending email. Options are 5 sec, 10 sec, 30 sec, 1 min, and 3 min.

SMTP PORT: This indicates the SMTP server sender port. Usually, the SMTP port is 25, but there are exceptions. For example, the SMTP port of the Gmail server should be 465.

SMTP: This indicates SMTP server address. Example: *smtp.Gmail.com*

SENDER: Sender indicates sender's email address. The email address should be consistent with the server you use. For example, when you use the email address "abc@gmail.com", the corresponding server should be smtp.gmail.com.

RECEIVER: This indicates the recipient email address. The email address is used to receive images transmitted after a motion detection alarm by the DVR.

7.5.4 Mobile Monitor

Move the cursor to **MOBILE**, then press **ENTER** to open the mobile monitor menu.

SERVER PORT: Mobile monitoring port. Enter the correct mobile port, then click the "check" button in the lower right corner of the window to commit your settings. The setting range is 1024 – 65535. The default value is 10510.

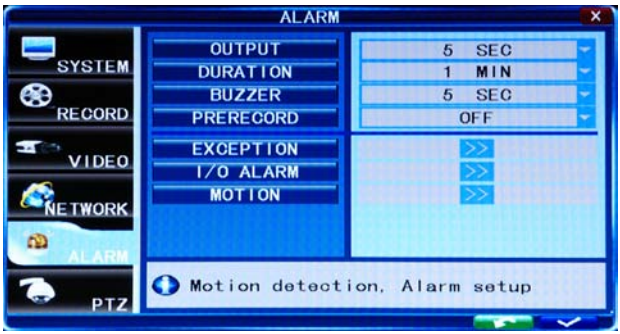
NETWORK TYPE: Select on of the following options: 3G, 2.5G, 2.75G, and WIFI, then click the "check" button in the lower right corner of the window to commit your settings.

Connect the DVR to the Internet before setting the DVR port number. The port number cannot be the same as the ports specified in other network menus.

NOTE *You can only view one camera channel at a time from a mobile phone. The speed of the display depends on the speed of the internet connection*

7.6 Alarm

Move the cursor to **ALARM** and press ENTER to open the alarm menu.



7.6.1 OUTPUT

This function sets the output time for the I/O alarm when an alarm is triggered. Options include OFF, 5 seconds, 10 seconds, 30 seconds, and 60 seconds. If you choose OFF, the alarm will not be triggered.

7.6.2 DURATION

This function sets the duration of the recording time when alarm recording is activated. Options are 30 seconds, 1 minute, 2 minutes and 5 minute.

7.6.3 BUZZER

This function sets the buzzer calling time when the alarm is triggered. Options are OFF, 5 seconds, 10 seconds, 30 seconds, and 60 seconds.

7.6.4 PRERECORD

Prerecord sets the time segment recorded before the alarm is activated. Options are OFF and 5 seconds.

7.6.5 EXCEPTION

Click **Tool Bar -> System settings** -> **Alarm** -> **Exception** to open the exception alarm menu. In this menu you can set the buzzer and I/O output for HDD Full, HDD Loss and Video Loss.

HDD FULL: You can set buzzer alarm and I/O output alarm when there is a defined space remaining for HDD to recording. Options are OFF, 1G, 5G , 10G, 1 hr, 5 hrs , 10 hr and 20 hr.

HDD LOSS: ON causes a relevant alarm to occur when no HDD is installed. An alert icon will be displayed on the left bottom of channel 1 in the live view.

VIDEO LOSS: ON causes the relevant alarm to occur when a channel has no video input.

NOTE *If the buzzer alarm is OFF, exception alarms will not be triggered.*

7.6.6 I/O Alarm

Click **Tool Bar -> System settings** -> **Alarm** -> **I/O Alarm** to open the I/O Alarm menu. Options are defined below.

CHANNEL: Select the channel you need to setup.

I/O ALARM: Each channel corresponds to an I/O status, which means when an alarm is triggered, it will activate the corresponding channel to start alarm recording.

N.O.: Normally open alarm type. In the normal state, the sensor device is kept at a constant low voltage (open circuit). If output voltage changes from low to high, then the alarm is triggered (closed circuit).

N.C.: Normally closed type (also – "normally connected"). In the normal state, the sensor device is kept at a constant high voltage closed circuit). If output voltage changes from high to low, then the alarm is triggered (open circuit).

OFF: Set to OFF if an external sensor alarms is not used.

OUTPUT: Set to ON if an alarm occurs when triggered by sensor.

RECORD: Set to ON for the channel to record when triggered by a sensor.

BUZZER: Set to ON for the buzzer to sound when an alarm is triggered by a sensor.

Prerecord: Set to ON for the channel to record the 5 seconds of video occurring before the alarm is triggered by a sensor.

Email: Set to ON for a snapshot of the channel video to be send by email after a alarm was triggered by a sensor.

NOTE *If the output time, record, buzzer, prerecord and Email is OFF, the relevant option will not be triggered.*

7.6.7 Motion Detection

Click **Tool Bar -> System settings** -> **Alarm** -> **Motion** to open the motion detection menu. In this menu, you can set the Sensitivity, MD Detection area, Output, Record, Buzzer, Prerecord, and Email parameters.

CHANNEL: Select the channel you need to setup. Open the drop-down menu to select the channel number

SWITCH: Set the switch to ON to enable motion detection for the channel selected.

SENSITIVITY: Set the sensitivity for the channel selected. A sensitivity of "1" indicates highest sensitivity. Open the drop-down list to select a level appropriate for the channel.

MD AREA: To improve DVR performance, use the MD Area feature to select only the areas of a channel video image to sense for motion. For example, the image of a road near a walkway can be configured to sense for motion only in the walkway only.

To establish motion detection areas in the video image, click the >> icon on the **MD AREA** line. An image of the channel video will appear, covered by a semi-transparent layer on a 10 x 15 block grid. Motion sensing for blocks in the grid can be toggled on and off by clicking on the block area. Areas on the screen selected for motion sensing are indicated by removal of the semi-transparent layer inside the block area.

Video channel without (left) and with (right) areas of motion sensing

To return to the MOTION DETECTION menu from the MD AREA setup screen, right-click anywhere.

RECORD: If set to ON and the channel is triggered by motion, the channel will record.

BUZZER: If set to ON and the channel is triggered by motion, the buzzer will sound.

PRERECORD: If set to ON and the channel is triggered by motion, the previous 5 seconds of video from the channel is recorded.

EMAIL: If set to ON and the channel is triggered by motion, a picture of the channel will be send with the email notification.

7.7 PTZ

Click **PTZ** to open the PTZ menu. Each channel can accommodate at most 1 PTZ device. The PTZ configuration you setup for the channel must match the configuration settings of the PTZ device. When making changes to any channel PTZ configuration, changes will take effect after you save your settings and exit the menu.

7.7.1 Channel

The channel connected to a PTZ device.

7.7.2 Protocol

Select the protocol of the PTZ device. Options are: Pelco-D and Pelco-P.

7.7.3 Baud Rate

Select the baud rate PTZ device. It must be consistent with the baud rate of the actual PTZ cameras installed. Options are: 1200, 2400, 4800, 9600.

7.7.4 Data Bit

Select the data bits setting of the PTZ device. Options include 5, 6, 7 and 8. The default setting is 8.

7.7.5 Stop Bit

Select the stop bit setting of the PTZ device. Options include 1 and 2. The default setting is 1.

7.7.6 Parity

Select the parity setting of the PTZ device. Options include NONE, ODD, EVEN, MARK, and SPACE. The default setting is NONE.

7.7.7 Address

Select the address ID of the PTZ device. Options are 1 .. 255.

SECTION 8
Cleaning

Clean the camera lens and IR lamp shield with a mild glass cleaning solution and a lint free cloth.

- Remove all foreign particles, such as plastic or rubber materials, attached to the camera housing. These may cause damage to the surface over time.
- Dust can be removed from equipment by wiping it with a soft damp cloth. To remove stains, gently rub the surface with a soft cloth moistened with a mild detergent solution, then rinse and dry it with a soft cloth.

Do not use benzene, thinner or other chemical products on the camera assembly; these may dissolve the paint and promote damage of the surfaces. Before using any chemical product, read the instructions carefully.

APPENDIX A
Off-loaded Video Files

Video files can be off-loaded to a USB flash drive or downloaded using IE. For the best compatibility and performance with Windows operating systems, Supercircuits recommends that you choose AVI file format for all video backups and downloads.

Backing up files to a USB flash drive

Before playing backed-up files on a Windows operating system with an application such as Windows Media Player, it may be necessary to install the file format CODEC. The CODEC is provided in ZIP format.

To install the CODEC:

1. Copy the CODEC from your flash drive to your Windows computer. It is named **WMP_Media_Filter**.

2. Extract the CODEC to new folder.

3. Open the folder and run the **InstallFilter** executable.

When playing an MP4 file with Windows Media Player for the first time, you may be prompted to allow that file extension to be used. Click **OK** to proceed.

Downloading video files

When downloading video files with the IE web browser, the MPEG4 CODEC pack is not included. If the CODEC is not already installed on your computer, contact the Supercircuits Support team at 1.800.335.9777 to obtain it.

APPENDIX B
Troubleshooting

This basic troubleshooting guide will help you identify general malfunctions and offer steps for a quick resolution. If the failure or malfunction can't be solved by following these steps, please contact Supercircuits Support at 1.800.335.9777.

WARNING *Removing the cover of your DVR will VOID the warranty.*

☛ DVR does not power up.

- Check the power switch.
- Check the power adaptor input connection.
- Check the power source. Is it providing about 120 VAC?
- Check the power On/Off switch.

☛ The DVR reboots or stops, then restarts after several minutes.

Check for the following problems:

- Unstable or low input voltage.
- The hard disk drive is bad.
- Power adapter is defective.
- Environmental factors such as temperature, dust, humidity, etc. are affecting the DVR stability.
- The DVR internal connectors are loose.
- The DVR hardware is defective.

☛ The DVR crashes during recording or while watching recorded information.

- Check to see if there are any problems with the hard disk. If one of your hard disks has failed or malfunctioned, replace it and try again.

☛ Updating fails.

- Verify that the DVR is able to recognize the USB storage device. not able to recognize the USB storage device. Test more than one USB storage device to ensure compatibility.
- Updating may fail if the USB port is doesn't work well due to voltage fluctuation.

☛ Mouse doesn't work.

- A mouse of a different brand may not work with your DVR. Use the one provided with the system. Wireless mice do not work with your DVR.

☛ There is no output from a single channel, multiple channels or all video channels.

- Check the power adaptor connections.
- Check the video input/output cable connections on the back panel of DVR.
- Insert the video source directly into the display device to verify that it is working properly.
- Check the brightness settings of the display device. Reset the display to factory default settings.
- Check the camera video signal level at the channel input connector.
- Check for channel Preview security restrictions and privacy masks.
- The hardware of DVR could be defective.

☛ The DVR will not record after startup and the interface is showing " "?

- Make sure power adaptor is providing 12 VDC to the DVR power input.
- Make sure HDD is formatted.
- Check the power and data connection cables of the HDD.
- The HDD could be defective.
- The SATA port may be not working (DVR defective).

☛ There is no image on the monitor.

- Verify that power is provided to the monitor. If the monitor uses a power adapter, check all connections.
- Check the brightness setting of the monitor.
- Check the video cable connections at the monitor and at the DVR.

☛ The image on the monitor isn't clear.

- Check the monitor and cameras for signs of damage or deterioration.
- Check the video cable for damage and verify that it is properly connected.

☛ The image color quality is poor in live and recorded images.

- Check proper adjustment of the output/input video parameters on the DVR menu.
- Check the connecting cables to ensure that they are connected properly.

☛ A mosaic pattern appears on the monitor during playback.

- If the recording parameters are set too low, the recording quality may decline, resulting in occasional mosaics. Adjust your settings appropriately.
- Check the hard disk drive. Damaged sections on the of the HDD can cause mosaics during playback.

☛ The DVR is showing real-time images with bad image color, brightness distortion, etc.

- Verify that the PAL/NTSC setting for the BNC output is configured correctly (NTSC). Improper settings can cause the images to appear black and white.
- Make sure the DVR is compatible with monitor.
- Make sure the video transmission distance is within the recommended range.
- Adjust the settings for DVR color, brightness, etc.

☛ There is no sound when monitoring the channel.

- Check the sound box or speaker functions. Also check for possible short-circuit problems.
- Audio source may be connected to the video channel. Click to full-screen to verify.
- Check the audio channel mute configuration setting.
- The DVR could be defective.

☛ There is no audio sound when playing back recordings

- Check the audio-video playback settings.
- Check the audio to see if it is closed in playback interface.

☛ The system time is not correct.

- Check the system time configuration settings. The wrong setting might be selected.
- Check the motherboard battery. The battery may not be installed properly, or may be expended (dead).

☛ After right clicking "Stop recording" on the tool bar, the recording does not stop. How do I stop recording?

- Check the recording mode. The "Stop recording" button functions for Manual recording only.
- If the DVR is scheduled for continuous recording at the current time, change the schedule to stop recording.

☛ Motion detection is not working properly.

- Check the motion detection area configuration setup.
- Check the sensitivity setting for motion detection. The sensitivity may be set too low or too high.

☛ The remote control does not work.

- Verify that the address setting of the remote control is correct.
- Obstructions may be blocking the remote control sensor.
- The remote control may be too far away or at an extreme angle to the sensor.
- Check the remote control batteries
- Make sure that the remote control and the sensor on the DVR are not damaged.

☛ Cannot login to the DVR through IE (across a network).

- Verify that the DVR is connect to the network.
- Check if LINK or 100M LED is displayed normally on the panel;
- Use the ping command (ping <DVR IP address>) to verify that you can connect to the DVR.
- Check if the Internet is linked properly.
- Verify that you are using Windows XP or later, and the Microsoft IE 6.0 browser or later.
- Verify that the ActiveX control control has not been blocked. Check your Internet security settings and the guidelines in this manual.
- Very that you are using DirectX 8.1 or later.

APPENDIX C
DVR Compatible HDDs

The HDDs listed below are compatible with your DVR.

NOTE: Removing the cover of your DVR will VOID the warranty.

WARNING

Removing the cover of your DVR will VOID the warranty. If the HDD must be replaced, return the unit to Supercircuits, Inc. for replacement and setup.

Table 2. DVR Compatible HDDs

Manufacturer	Model Number	Size (GB)	Drive Interface
Western Digital®	WD5001ABYS	500	SATA
	WD5000AVVS	500	SATA
	WD7500AACS	750	SATA
	WD10EADS	1000	SATA
	WD15EADS	1500	SATA
	WD20EADS	2000	SATA
Hitachi®	HDS721075KLA330	750	SATA
	HDT721010SLA360	1000	SATA
Maxtor®	6V16010	160	SATA
Seagate®	ST3250310SV	250	SATA
	ST3500320SV, ST3500320AS	500	SATA
	ST31000528AS	1000	SATA
	ST31500341AS	1500	SATA
Samsung℠	HD161HJ	160	SATA
	HD501LJ	500	SATA

APPENDIX D
DVR Compatible USB DVD Recorders

The following portable USB DVD recorders found to be compatible with the DVR.

- Sony® DRX-S70U-R
- HUGE USB Slim Portable Optical Drive
- LG® GE20LU10
- LiteOn® eSAU108
- Buffalo™ DVSM-P58U2/B

Other USB recorder devices may also be compatible.

APPENDIX E
Specifications

Model	DMR90U	DMR91U	DMR92U
Video format	NTSC / PAL		
Video compression	H.264 baseline compression		
Video input/output	BNC 4 input / 1 output	BNC 8 input / 1 output	BNC 16 input / 1 output 1 channel spot
Audio format	G.726 8K x 16 bit ADPCM monophonic		
Audio input/output	RCA 4 input / 1 output	RCA 8 input / 1 output	RCA 16 input / 1 output
Alarm type	Motion detection, Sensor Input, Relay Output , Video Loss		
Sensor In/Out	4 channel input / 1 channel output		16 channel input / 1 channel output
Display frame rate	Each channel PAL: 25 fps, NTSC: 30 fps		
Record frame rate	PAL: 100 fps @ CIF, 100 fps @ HD1, 50 fps @ D1. NTSC: 120 fps @ CIF, 120 fps @ HD1, 60 fps @ D1.	PAL: 200 fps @ CIF, 100 fps @HD1, 50 fps @ D1 NTSC: 240 fps @ CIF, 120 fps @ HD1, 60 fps @ D1.	PAL: 400 fps @ CIF, 200 fps @ HD1, 100 fps @ D1 NTSC: 480 fps @ CIF, 240 fps @ HD1, 120 fps @ D1.
Record method	Power-on Auto Record, Scheduled Record (Normal Record, Motion Detection, Sensor Trigger), Manual Record		
Playback resolution	CIF / half-D1 / D1 @ recorded frame rate		
Playback method	Normal, fast forward, slow forward, rewind, single step		
HDD interface	SATA Interface support 1 TB, HDD*1		
Network interface	RJ-45 10/100BaseT Ethernet, auto detect		
Network protocol	TCP-IP / DHCP / DDNS / PPPOE / eMail		
Network function	Live monitor, playback, configuration, backup, mobile phone surveillance		
USB 2.0 interface	Mouse / portable mobile HDD/ flash drive/ DVD burner/ firmware upgrade		
PTZ protocol	PELCO-P , PELCO-D		
Area covered	Each channel supports four pieces of area covered		
Video backup	AVI over Network		
Power adapter	DC 12V adapter		
Power consumption	10~15W		
Operating temperature	50°F ~ 104°F (10°C ~ 40°C)		
Operating humidity	10% ~ 90%		
Dimensions	9.84 (w) x 8.58 (d) x 1.65 (h) in (250 (w) x 218 (d) x 42 (w) mm)	12.40 (w) x 8.82 (d) x 2.05 (h) in (315 (w) x 224 (d) x 52 (h) mm)	17.13 (w) x 13.23 (d) x 2.17 (h) in (435 (w) x 336 (d) x 55 (h) mm)